STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

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In the Matter of the Application of

Case 03-E-0188SP29

COVANTA ENERGY CORPORATION

For Modification of the List of Eligible Resources Included in the New York Main Tier Renewable Portfolio Standard Program to Include Energy From Waste (EfW) Technology

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INTRODUCTION

In a petition dated February 11, 2011, Covanta Energy Corporation ("Covanta") seeks designation of Waste to Energy ("WTE") as an eligible renewable energy resource in the Main Tier of the Renewable Portfolio Standard ("RPS").[1] Covanta is an internationally recognized owner and/or operator of 44 WTE facilities worldwide, and the largest WTE operator in the United States with annual revenues from operations of $1.6 billion in 2010.[2] Covanta's petition to the Public Service Commission ("PSC") requests that electricity generated from the incineration of municipal solid waste ("MSW") be eligible for the RPS "Main Tier" funding.[3] The petition argues, among other things, that WTE technology has made efficiency improvements and air emissions reductions, produces substantial net carbon reductions and outperforms landfill gas to energy - an eligible RPS technology - relative to emissions and energy generation.

SUMMARY OF COMMENTS

The RPS, established by the PSC in 2004, is recognized as a means to reduce dependence on fossil fuels and to develop new sources of electric power based on renewable, clean, and sustainable technologies. The PSC rejected WTE as a renewable energy source eligible for RPS ratepayer subsidy in 2004 and again in 2010, finding, among other things, that emissions from WTE facilities in New York were greater than emissions from coal-fired plants on a per unit of energy generated basis. In its current petition, Covanta has failed to demonstrate that it has addressed the concerns identified

[1] The RPS was established by the Public Service Commission and is funded by a fee collected from ratepayers of investor owned electric utilities in the State. It is administered by NYSERDA, and as of December 2010, approximately $882.1 million has been expended or committed. See NYSERDA NYS RPS Performance Report, December 31, 2010. As of 2007, a typical residential customer paid $2.87 annually and non-residential paid $30.24 per year. Customers of the New York Power Authority and the Long Island Power Authority are exempt. http://www.nyserda.org/rps/faq.asp.

[2] See Covanta 2010 Annual Report, at 7, 15; see also www.covantaenergy.com.

[3] See Petition of Covanta Energy Corporation to the PSC, February 11, 2011 ("Covanta Petition") at 1.

on the record in the prior RPS proceedings. Consistent with the PSC's prior determinations, the OAG opposes providing RPS ratepayer subsidies for incineration of MSW on environmental and policy grounds. Covanta has not demonstrated that WTE should be eligible for RPS ratepayer subsidy because:

- Energy from combusting municipal solid waste is not renewable;
- Subsidizing additional WTE capacity through the RPS would be inconsistent with aspects of State solid waste policy and State climate change policy;
- WTE stack CO_2 emissions are greater than from fossil based power generation on a per unit of energy generated basis, and above the New York State grid average;
- Covanta's claim that WTE results in net removal of greenhouses gases (GHG) from the atmosphere is unsubstantiated and scientifically uncertain;
- Subsidizing construction of new WTE facilities threatens the State's ability to reach GHG reduction goals;
- Air pollutant emissions from Covanta's WTE facilities generally exceed emissions from fossil fuel facilities in New York State on a per unit of energy generated basis;
- Granting eligibility to WTE facilities would be inconsistent with RPS goals of developing new, clean, renewable energy technologies;
- Covanta has failed to demonstrate financial need for a public subsidy.

Should the PSC consider WTE as a renewable source of energy eligible for RPS ratepayer subsidy, the PSC's 2004 Final Generic Environmental Impact Statement on the RPS issued pursuant to the State Environmental Quality Review Act ("SEQRA"), ECL Article 8, should be updated with regard to the potential adverse environmental impacts of additional WTE. Furthermore, should the PSC consider adding WTE to the RPS, the RPS should be restructured so that WTE does not compete with emission-free renewable energy resources for limited ratepayer subsidies.

BACKGROUND

On September 24, 2004, the PSC established the RPS which, as modified in 2010, set a goal to increase the proportion of electricity produced from renewable energy resources in New York from 19.3% to 30% by 2015.[4] There are two tiers of eligible renewable sources in the RPS. The "Main Tier" includes wind power, tidal power, solar, hydropower, fuel cells, liquid biofuels, biomass and biogas. There is also a "Customer-Sited Tier" for smaller resources that produce electricity for on-site use, however, the bulk of the competitive procurements are for large Main Tier electric generation facilities. A 2009 report prepared for the PSC by the New York State Energy Research and Development Authority ("NYSERDA"), found that the RPS played "a critical role in advancing renewable energy markets in the State to date . . . ."[5]

In the order establishing the RPS, the PSC rejected WTE as a renewable resource eligible for RPS ratepayer subsidy.[6] Among other things, the PSC found that WTE air emissions, particularly mercury and nitrogen oxides ("NOx"), exceeded those of the dirtiest coal facilities per unit of energy generated, and proponents had not made a strong case that the industry needed financial support from ratepayers. In its April 2, 2010 order, the PSC again rejected adding WTE to the RPS stating: "[w]e decline to adopt a policy that uses statewide ratepayer funds to promote the burning of general municipal solid waste to produce electricity."[7] However, the Commission recognized municipal solid waste as a potentially important energy source and encouraged the industry to implement state-of-the-art processes that would mitigate the expressed concerns and potential impacts.

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[4] The initial goal of the RPS was 25% renewables by 2013: PSC Case 03-E-0188, Order Regarding Retail Renewable Portfolio Standard, September 24, 2004, (hereafter "2004 RPS Order"). The goal was modified to 30% by 2015: PSC Case 03-E-0188, Order Establishing New RPS Goal and Resolving Main Tier Issues, January 8, 2010, at 10, 13-14.
[5] NYSERDA New York Renewable Portfolio Standard Program Evaluation Report (2009 Review) at 6.
[6] 2004 RPS Order at 38-40.
[7] PSC Case 03-E-0188, Order Resolving Main Tier Issues, April 2, 2010, at 14-17.

INTEREST OF THE ATTORNEY GENERAL

The Office of the Attorney General ("OAG") is charged with the statutory and common law powers to protect consumers and investors, charitable donors, the public health and environment, civil rights, and the rights of wage-earners and businesses across the State. The Attorney General is both the "People's Lawyer" and the State's chief legal officer. As the "People's Lawyer," the Attorney General serves as the guardian of the legal rights of the citizens of New York, its organizations and its natural resources. In his role as the State's chief legal counsel, the Attorney General not only advises the Executive branch of State government, but also defends actions and proceedings on behalf of the State. The OAG has brought numerous court actions to reduce air pollution, and has worked to defend and improve clean air laws. The OAG has been a party in numerous PSC proceedings, including the proceeding establishing the 2004 RPS. The OAG strongly supported creation of the RPS to reduce reliance on fossil fuels and their attendant adverse health and environmental impacts, and to increase the proportion of clean renewable energy in the State.

During the Commission's administrative proceeding in 2003, the OAG supported ratepayer subsidies for renewable sources of energy that provide clear environmental benefits to the State such as solar, wind, tidal, low impact hydropower, fuel cells and sustainably managed biomass. The OAG opposed eligibility of WTE for RPS ratepayer subsidy for several reasons: 1) WTE is not sufficiently clean from an air emissions perspective to qualify for the RPS; 2) WTE it is not a renewable resource under other State policies; 3) providing incentives for solid waste incineration would be inconsistent with the State’s Solid Waste Management Policy; and 4) more energy is saved from solid waste reduction and recycling than from burning waste.

In its 2003 comments, the OAG compared air emissions from seven WTE facilities in New York to both the Huntley coal-fired electrical generation facility in western New York and the Sithe Independence natural gas-fired facility. The emissions data showed that on average, WTE incinerators emitted more mercury, lead, cadmium and dioxin per megawatt hour ("MWh") than the coal or natural gas facilities.[8]

COMMENTS

1. Energy from Combusting Municipal Solid Waste is Not Renewable

New York State regulations do not employ a uniform definition of "renewable energy" across the regulatory spectrum. The PSC acknowledges this difficulty in defining renewable energy, stating:

> When establishing the RPS program in 2004, the Commission's decision on what resources should be eligible for the RPS took several factors into consideration. It noted that in different legal contexts "renewable" may be given any one of a myriad of definitions and noted the efforts of the parties to focus on what resources should be eligible, rather than attempt to resolve the definition of renewables in the abstract.

See PSC Case 03-E-0188, RPS, Order Resolving Main Tier Issues, April 2, 2010, at 3.

While acknowledging the inherent ambiguity, if consideration is to be given to include WTE under the definition of "renewable," the large percentage of energy that WTE facilities generate from the non-biogenic fraction of MSW, should not be deemed "renewable" by the PSC under even the most expansive use of the term, as explained below.

For the MSW disposed of in New York State, NYSDEC estimates that the current mix is 60% biogenic (wastes derived from plants and animals) and 40% non-biogenic

[8] Comments of the OAG dated September 26, 2003 ("9/26/03 OAG Comments") in the RPS Proceeding at Appendix.

(wastes primarily derived from fossil fuels, such as plastics).[9] Regional differences in the percentages in the mix do exist, including in the New York City area where the urban environment contributes to a higher percentage of biogenic food wastes.

Applying US Energy Information Agency (EIA) national estimates of the heat content of the biogenic and non-biogenic fractions of MSW shows that roughly half of the energy generated at a WTE facility combusting average New York State MSW would be generated from the non-biogenic component of the waste stream (See Table 1).[10]

Table 1. Estimates of NYS Biogenic Versus Non-Biogenic WTE Energy Production

Characterization of MSW Disposed of in NYS*	Heat Content of MSW - US average (Million BTU/Ton)**	Energy Available from MSW Disposed of in NYS (Per Ton)
40% Non-biogenic	15.07	50.2%
60% Biogenic	9.96	49.8%

** NYSDEC Solid Waste Management Plan "Beyond Waste: A Sustainable Materials Management Strategy for New York," 2010, at 96, 155.*

*** US DOE Energy Information Administration, Methodology for Allocating Municipal Solid Waste to Biogenic and Non-Biogenic Energy, 2007, at 10, 16, 17.*

Since 2007, EIA has excluded all WTE energy produced from non-biogenic wastes when reporting estimates of US renewable energy production. Because the energy produced from combusting the non-biogenic component is not renewable, it should not be defined or treated as such for the purposes of the RPS.

[9] From NYSDEC Solid Waste Management Plan "Beyond Waste: A Sustainable Materials Management Strategy for New York" at 96. Note, there are minor differences in how NYSDEC and EIA characterize the biogenic/non-biogenic components of the MSW waste stream.

[10] Per EIA methodology, the biogenic component of the waste is defined as newsprint, paper, containers and packaging, textiles, yard trimmings, food wastes wood, leather and "other biogenic" wastes. Inclusion of at least a portion of the textile wastes, much of which is composed of plastic materials, in the non-biogenic waste fraction, would further increase the relative contribution of energy produced from the non-biogenic fraction.

2. Subsidizing Additional WTE Capacity is Inconsistent with Aspects of State Solid Waste Policy

The 1988 Solid Waste Management Act, ECL 27-0106, establishes the State's preferred hierarchy of solid waste management, dictating that if municipal solid waste remains after promoting waste prevention, reuse, recycling and composting, it is preferable to generate electricity from combusting it rather than disposing of the MSW in a landfill. The December 2010 release of NYSDEC's update of the 1987 Solid Waste Management Plan, Beyond Waste, a Sustainable Materials Management Strategy for New York State ("Beyond Waste"), presents a clear, long-term vision for State solid waste policy.

> New York State's Beyond Waste Plan sets forth a new approach for New York State—a shift from focusing on "end-of-the-pipe" waste management techniques to looking "upstream" and more comprehensively at how materials that would otherwise become waste can be more sustainably managed through the state's economy. This shift is central to the state's ability to adapt to an age of growing pressure to reduce demand for energy, reduce dependence on disposal, minimize emission of greenhouse gases and create green jobs.

See Beyond Waste, Executive Summary at 1.

Fundamental to Beyond Waste is its twenty year goal of reducing the average amount of MSW New Yorkers dispose by 85 percent, from 4.1 to 0.6 pounds per person per day by year 2030. Achieving this goal will result in the State producing approximately 2.2 million tons of MSW in 2030.[11] In 2009, NYS WTE facilities processed 3.9 million tons of MSW - 1.7 million tons *more than* the total MSW that will be available in year 2030. From a statewide perspective, using the RPS to promote

[11] Assuming a NYS population of 20,415,446 in 2030. See http://pad.human.cornell.edu/counties/projections.cfm

creation of additional, potentially surplus WTE processing capacity through expansion of current facilities or construction of new, long-lived facilities is unwarranted.

Beyond Waste also suggests that the greatest potential for cost-effective and substantial reductions in MSW generation lies with policies promoting the reduction of the biogenic waste fraction. For example, yard wastes and food scraps lend themselves to composting technologies, and significant gains in residential paper recycling rates are possible. As explained in Beyond Waste, the percentage of biogenic materials in New York State's MSW is expected to continue to decrease as source separation, composting and other solid waste initiatives are increasingly implemented, consistent with the U.S. trend. Accordingly, this will further increase the percentage of WTE energy derived from the non-biogenic (primarily fossil-fuel based) fraction of the waste stream, which in turn further reduces the argument for considering WTE "renewable." Finally, WTE facilities generate an ash waste that must be managed and properly disposed of as a solid waste.

At least five of the ten WTE facilities in New York imported solid waste from outside New York State. For example, Covanta's incinerator in Niagara Falls imports garbage from Canada, Puerto Rico, Texas and numerous other states. Were Covanta's petition granted, its facilities would be eligible for funds to expand operations and increase capacity, causing New York ratepayers to subsidize the burning of imported garbage.

3. Subsidizing Additional Waste to Energy Capacity is Inconsistent with State Climate Change Policy

Governor's Executive Order 24, initiated by Governor Paterson in August 2009 and continued by Governor Cuomo in January 2011, establishes New York's goal for a robust clean energy economy by year 2050, defined in part, by an 80 percent reduction of

State greenhouse gas (GHG) emissions below 1990 levels by year 2050 (or "80 by 50"). Beginning the design and implementation of the policies necessary to achieve these ambitious but necessary goals, the New York State Climate Action Council, also established by the Order, produced the 2010 Climate Action Plan Interim Report (Report). In describing the energy system transformation necessary to power the clean energy economy, the Report concludes, unambiguously, that New York must develop abundant, affordable, safe and sustainable sources of "clean energy," all with near-zero carbon emissions. It also finds that the State's RPS is an important tool to incentivize the development and expansion of renewable sources of energy.[12]

The State's analysis of the 80 by 50 goal, and the clarity it provides in defining often ambiguous terms such as "low carbon" and "clean energy," can assist the PSC in evaluating the appropriateness of including WTE in the RPS program. The Report describes the prerequisite of having a near carbon-free electrical grid to reach 80 by 50 and how, as a result, combustion of even the lowest CO_2-emitting fossil fuels, such as natural gas, must be very limited or even eliminated altogether by year 2050.[13] Similarly, CO_2 emissions from WTE facilities that supply power into the grid will experience the same type of emission constraints. As a result, it is important that the PSC be provided accurate information to support a comprehensive analysis of the current *and future* carbon-intensity of WTE facility emissions. As explained in the following, the Covanta petition is inadequate in this regard.

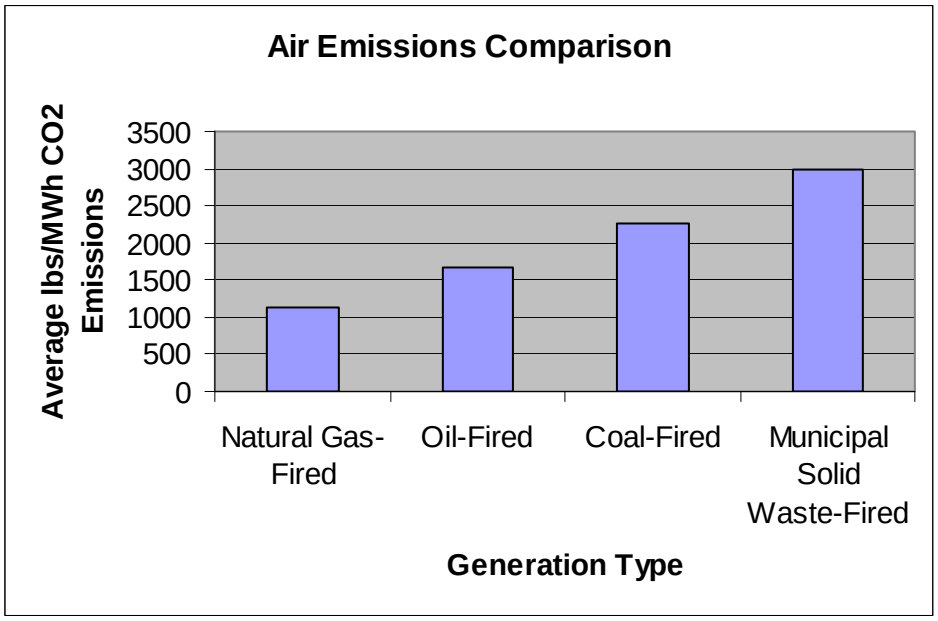
[12] NYS Climate Action Plan Interim Report at 8-15.
[13] Fossil fuel power generation could continue past 2050 with deployment of carbon capture and storage technologies, if feasible.

A) WTE Stack CO_2 Emissions are Greater Than From Fossil Based Generation and Above the NYS Grid Average

WTE facilities generate CO_2 emissions during combustion, where oxidation of the carbon contained within the biogenic and non-biogenic waste occurs. Regardless of the carbon source of the emissions, the heat-trapping properties of the CO_2 ultimately released to the atmosphere are identical.

Total CO_2 stack emissions, also referred to as gross or direct emissions, are high from WTE facilities -- the national average is 3000 lbs CO_2/MWh. This emission rate for WTE plants is greater than from fossil fuel combustion facilities, including coal plants, on a per unit of energy generated basis.[14] See Figure 1.

Figure 1. Comparison of Total CO_2 Emission Rates from Fossil Fuel and WTE Facilities



For comparison purposes, the PSC estimates the average CO_2 intensity for the New York State electric grid, which is composed of significant low-carbon emission sources such as

[14] http://www.epa.gov/cleanenergy/energy-and-you/affect/air-emissions.html, accessed July 6, 2011, last updated December 28, 2007.

hydropower and nuclear, at 801 lbs CO_2/MWh in 2009, much less than from WTE facilities.

B) Covanta's Claim that WTE Results in Net Removal of Greenhouses Gases (GHGs) from the Atmosphere is Unsubstantiated and Scientifically Uncertain

Covanta claims that MSW combustion at WTE facilities results in an overall net removal of GHGs from the atmosphere. This conclusion is based on a number of uncertain and unproven assumptions. In evaluating CO_2 emissions from WTE facilities, Covanta and others often discount the total CO_2 emission rate after consideration of several potentially mitigating factors, and then report a "net" emission rate of CO_2 to the atmosphere. When calculating a net CO_2 emission rate in its petition, factors that Covanta subtracts from the total stack CO_2 emissions of its facilities include:[15]

- methane (a greenhouse gas approximately 23 times more potent than CO_2 over a one hundred year period) released to the atmosphere from decomposing waste in landfills that potentially is avoided by combusting rather than landfilling MSW;
- CO_2 emissions avoided by combusting MSW instead of fossil fuels to produce electricity;
- GHG emissions avoided from extraction and manufacturing of metals due to the ferrous metal recovery and recycling at WTE facilities;
- CO_2 emissions released from combusting the biogenic component of MSW, assuming them to be carbon neutral and therefore resulting in no net increase of atmospheric CO_2 concentrations.

Including these factors, Covanta concludes that MSW combustion at its WTE facilities results in an overall net removal of GHGs from the atmosphere, stating: "for every ton of waste processed using [WTE] in New York State, existing [WTE] facilities reduce approximately 0.8 tons of carbon dioxide equivalent emissions. . . . "[16]

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[15] See Covanta Petition at 22.
[16] See Covanta Petition at 3. Covanta prefers to use the acronym EfW (energy from waste) instead of WTE.

The potentially ameliorating factors Covanta identifies are difficult to quantify and many are currently under scrutiny by scientists and by federal and state regulators. For example, there is much debate on how to accurately determine the carbon-intensity of biogenic MSW. Some waste materials, such as textiles are treated as biogenic, but they may be made of plastic fibers derived from fossil fuels, such as polyesters. Wood, paper materials, and yard wastes may be produced from unsustainable land use practices that can decrease the carbon stored in the soil and vegetation of forests and agricultural lands.[17] To better analyze these issues, on July 1, 2011, the U.S. Environmental Protection Agency ("EPA") deferred for a period of three years the Prevention of Significant Deterioration (PSD) and Title V permitting requirements for CO_2 emissions from biogenic stationary combustion sources, including WTE facilities, in order to study how to accurately determine the carbon intensity of the biogenic component of these emissions.

Moreover, Covanta's petition does not analyze several important landfill related considerations when calculating the net CO_2 emission rate for WTE facilities, such as;

- the amount of carbon permanently sequestered in a landfill when MSW is deposited and therefore is not released as CO_2 to the atmosphere;
- the high uncertainty associated with estimates of methane leakage through landfill caps;
- the variability in performance of new, modern landfills as opposed to older, non-engineered landfills.

[17] EPA's Waste Reduction Model (WARM), used to estimate life-cycle GHG emissions from waste management options including landfills and WTE facilities, assumes all biogenic materials are grown on a sustainable basis. See: http://www.epa.gov/climatechange/wycd/waste/downloads/background-and-overview10-28-10.pdf at 14.

In addition, the Covanta petition does not contain all data used to quantify the net CO_2 emission rate calculated for WTE facilities.[18] In order to fully consider the climate change impacts of WTE, the PSC needs additional technical information and analysis prior to considering WTE as a RPS Main-Tier eligible technology.

C) Subsidizing Construction of New WTE Facilities Threatens State's Ability to Reach GHG Reduction Goals

WTE facilities have long lifetimes. As all of Covanta's seven New York WTE facilities constructed from 1980 to 1995 continue to operate, an estimate of an average facility lifetime of more than 30 years is reasonable. In 2009, Covanta's WTE facilities generated 1,367,376 MWh and released an estimated 1.85 million metric tons of CO_2.[19] To meet the 80 by 50 GHG reduction goal, New York's total allowable GHG emissions from all economic sectors (transportation, power generation, buildings, industry, etc.) is 50 million metric tons of carbon dioxide equivalents in year 2050.[20] If the current 2009 rates of CO_2 emissions and electric generation were maintained, WTE would use up nearly four percent of the economy-wide GHG emissions allowed while producing a minimal amount of the energy needed to power New York State. The State's electric ratepayers should not be subsidizing the construction of new, long-lived, high carbon infrastructure, that will make meeting the State's goals of 80 by 50 and a clean energy economy much more difficult.

4. <u>Air Pollutant Emissions from Covanta's WTE Facilities Generally Exceed Emissions from Fossil Fuel Facilities in New York State</u>

An important goal of the RPS is to improve the quality of the environment for all New Yorkers. Our 2003 comments to the PSC regarding WTE stated:

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[18] For example, the assumed methane capture rate at New York landfills or the CO2 intensity of the displaced electricity from the NYS electric grid.
[19] Assuming the EPA national average of 2988 lbs CO_2/MWh for Covanta's facilities.
[20] NYS Climate Action Plan Interim Report, dated November 10, 2010, at 5-7.

> The most fundamental goal of the RPS is to improve the environment by displacing emissions from traditional fossil fuel power plants in the State. Despite recent advances in air pollution control technology, however, MSW incinerators still emit significant air pollution.[21]

Table 2 updates the status of relevant WTE air emissions in New York State since the 2004 PSC Order, comparing emission rates of nitrogen oxides ("NOx"), sulfur dioxide ("SO_2"), mercury, lead, cadmium and hydrochloric acid ("HCl") from all WTE facilities and coal-fired power plants operating in New York State. The analysis shows WTE air emissions continue to exceed those from New York's coal-fired power plants for all pollutants listed, with the exception of SO_2, on a per unit of energy generated basis.

Table 2. NYS WTE and Coal-fired Power Plant Air Emissions Comparison *

Air Pollutant	2009 NYS WTE Emissions (lbs/MWh)	2009 NYS Coal Fired Power Plants (lbs/MWh)	Emissions Ratio (WTE/Coal)
NO_x	13.14	1.95	6.75
SO_2	1.82	8.42	0.22
Mercury	8.10E-05	5.76E-06	14.07
Lead	1.82E-04	1.32E-04	1.38
Cadmium	1.21E-05	2.86E-06	4.22
HCl	5.30E-04	1.34E-04	3.96

**Data supplied by NYSDEC, 2009; emissions are from New York State's 10 WTE facilities and eight coal-fired power plants.*

Similar WTE emissions comparisons between New York's natural gas-fired power plants and a profile of average emissions from the New York State electric grid were not performed. However, the emissions from these sources of electric generation are much cleaner than from coal-fired facilities, and WTE emissions would fare much worse in such a comparison.

Notably, the Covanta petition does not provide a systematic comparison of current New York State WTE air emissions to the State's fossil fuel-fired power plants nor to the

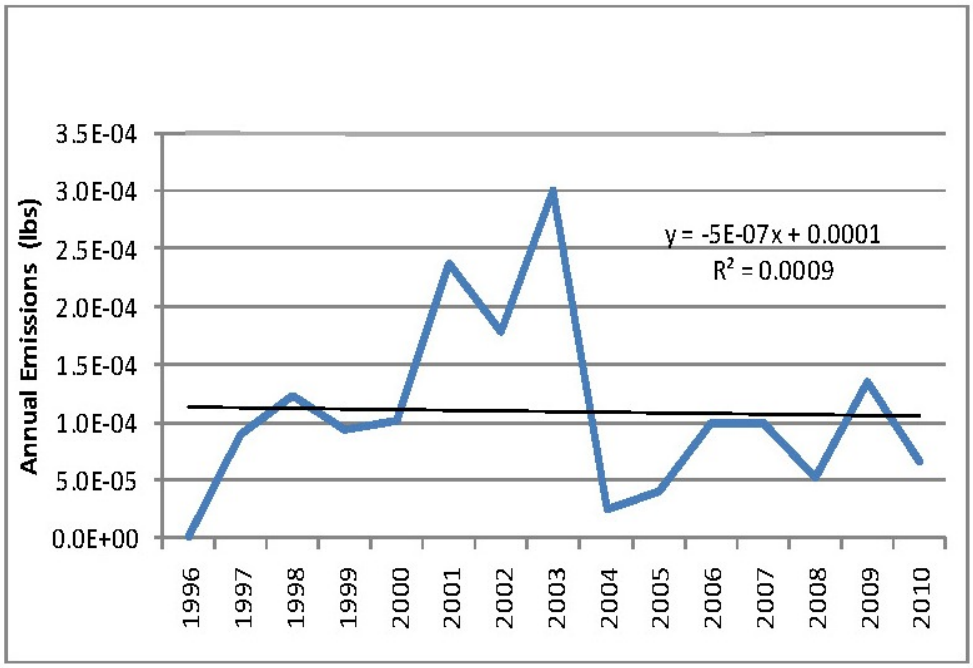
[21] OAG September 26, 2003 comments in the RPS Proceeding, at 28.

average air emissions from the State's electric grid. In addition, a systematic trend analysis of the State's WTE emissions profiles from year 2004, when the PSC ultimately rejected inclusion of WTE (due, in part, to significant air emissions), to the present was not provided by Covanta. Moreover, the WTE air emission data that was included in the Covanta petition is inconsistent with respect to pollutant, timeframe, form (units), and geographic location (state versus national), thus not affording the PSC the information necessary to fully evaluate the potential environmental impact of additional WTE within New York.

Hazardous air pollutants, such as dioxins, are formed during the WTE combustion process. Covanta's petition asserts that dioxin emissions from WTE facilities in the United States from 1987 to the present have dropped 99.8%.[22] Comments provided to the PSC by the OAG in 2003 demonstrated that dioxin emissions from WTE facilities in New York State were greater than the Huntley coal facility in Western New York.[23] Covanta's 2011 petition does not provide any evidence of improvement from those levels in New York State. A NYSDEC analysis of dioxin emission trends from five Covanta WTE facilities,[24] outlined in Figure 2, indicates annual dioxin emissions have remained similar to 2004 levels when the PSC rejected WTE from inclusion in the RPS.

[22] See Covanta Petition at 33-34.
[23] OAG September 26, 2003 Comments in the RPS Proceeding at 30 and Appendix.
[24] The five Covanta facilities NYSDEC analyzed are Hempstead, Babylon, Huntington, Onondaga and Niagara.

Figure 2. <u>Annual Dioxin Emissions from Five Covanta WTE Facilities</u>



Air pollutant emissions from WTE facilities in New York State continue to exceed those from fossil-fuel fired electric generation and, by definition, from emission-free technologies such as solar and wind. The PSC's 2004 rationale to exclude WTE, finding that: "[A]t this time, WTE facilities will not serve an RPS that, among other things, aims to improve air quality, public health and the environmental performance of the electricity supply system serving New York State," remains an accurate and compelling basis to not grant Covanta's request to include WTE as a Main Tier technology.[25]

5. <u>Granting Eligibility for WTE Facilities Would Be Inconsistent With the RPS Goal of Developing New, Clean, Renewable Energy Technologies</u>

The 2004 RPS set a number of goals and objectives including, among others: to foster economic benefits by developing renewables and attracting generators, manufacturers and installers to the State and to improve New York's environment by

[25] 2004 RPS Order at 39.

reducing air and greenhouse gas emissions and other adverse environmental impacts.[26] As discussed, Covanta's proposal to add WTE as a Main Tier resource is at odds with the goal of improving New York's environment. In addition, consistent with the RPS goal to develop new renewable technologies and attract new manufacturers, generators and installers to the State, the general rule articulated in the 2004 RPS Order, and affirmed in a 2010 PSC Order, requires that facilities first commence commercial operation on or after January 1, 2003.[27] A limited "vintage" exception was made for certain small-scale hydro, wind and biomass "maintenance" resources in the baseline of 19.3%, to ensure continued generation from these baseline resources. However, all of the Covanta-owned or -operated incinerators in the State were constructed and began operation prior to 1996; four of the seven facilities began commercial operation in the 1980's. Granting Main Tier eligibility for expansion or increased capacity for these old facilities is inconsistent with the RPS goal of building and developing *new* technologies, and would deviate from the RPS rule requiring eligible facilities to commence operation on or after January 1, 2003. Furthermore, the 2004 Order specifically encouraged the WTE industry to implement state-of-the-art technology to mitigate concerns expressed in the record.[28] However, the Covanta petition fails to demonstrate how these aging facilities meet the state-of-the-art standard, or how the WTE air emissions and other environmental concerns expressed on the record in the prior PSC proceedings would be mitigated.

6. <u>Covanta Has Failed to Demonstrate Financial Need for Ratepayer Subsidy</u>

The issue of public subsidies and financial need for WTE was raised in the 2004 Order and the Administrative Law Judge noted that "[p]roponents have not made a strong

[26] 2004 RPS Order at 23-24.
[27] 2004 RPS Order at 7; <u>see</u> <u>also</u> April 2, 2010, RPS Order at 8.
[28] 2004 RPS Order at 8 (concerns included emissions of mercury and heavy metals).

claim that their industry needs financial support from ratepayers in a RPS."[29] The PSC further noted that municipalities' MSW tipping fees are a revenue source in addition to the sale of electricity.[30] In addition to these revenue sources, six of the seven Covanta operated incinerators were already publically subsidized by the 1972 New York State Environmental Bond Act. According to DEC records, the following municipalities received funding to support development of WTE facilities from the 1972 Bond Act: Hempstead $2,000,000; Babylon $14,000,000; Dutchess $13,449,000; Huntington $14,000,000; Onondaga $295,000. Covanta operates all these facilities.[31] If WTE is granted Main Tier status as an eligible RPS renewable resource, it would compete directly with zero emission sources such as solar and wind, which do not have the advantages of additional revenue streams or municipal bonding subsidies.

7. Other States and the Conditions under Which They Allow WTE in the RPS

The Covanta petition asserts that "[s]imilar RPS programs now exist in 33 states plus the District of Columbia. Of those, 18 states . . . . recognize [WTE] as an eligible technology."[32] However, few if any of the programs in other states are similar to New York's central procurement model, which includes an RPS ratepayer subsidy. New York's administration of the RPS, through a central procurement system, is unique. Most states set standards requiring that electric utilities produce a certain percentage of their electric power from renewable energy by a specific date to meet an RPS goal.[33]

States that include MSW and/or WTE in their RPS programs have varying definitions of each. Many have a tiered system in which WTE is classified as a second

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[29] 2004 RPS Order at 39.
[30] While not noted by the PSC, Covanta WTE facilities also obtain revenues from the sale of metals recovered.
[31] See www.covantaenergy.com/efw-process/covanta-facilities.aspx.
[32] See Covanta Petition at 7.
[33] Pew Center on Global Climate Change, Renewable & Alternative Energy Portfolio Standards, http://www.pewclimate.org/what_s_being_done/in_the_states/rps.cfm, updated July 7, 2011.

tier resource, which provides a significantly lower percentage of electricity to the RPS than first tier sources, or imposes other restrictions on WTE's participation in the RPS. Those states include Connecticut, New Jersey, Massachusetts, Maine, Pennsylvania and the District of Columbia. Limitations include air emission requirements, allowable fuel content, or a limitation on the maximum number of megawatts eligible. For instance, in New Jersey, solid waste incineration facilities are "class II" renewables, subject to a fixed 2.5% minimum percentage of energy supplied through 2020; whereas the minimum percentage for "class I" renewables increases gradually from less than 1% to 17.8% by the year 2020.[34] Likewise, in Connecticut, "trash-to-energy facilities" are designated "class II" and output generated by "class II" resources remains constant at 3% of the total, while "class I" resources rise from not less than 2% in 2006, to 20% by 2020.[35] Connecticut also places a limitation on emissions from nitrogen oxides. New Hampshire and Vermont do not include incineration of municipal solid waste as an eligible resource. Vermont's statute specifies that no form of solid waste is considered renewable, unless it is agricultural or silvicultural waste.[36] Pennsylvania and the District of Columbia place WTE in tier II. The District of Columbia also has a phase out provision for tier II sources, and a utility may not use the incineration of solid waste to meet more than 20% of the standard for tier II sources.[37] WTE is eligible under the California RPS, but it applies to only one county[38] and eligible RPS facilities, among other things, must meet certain emission standards. In South Dakota, the RPS includes WTE but the objective is voluntary. Both Maine and Massachusetts allow WTE facilities to participate in the RPS program as a tier II or class II resource, with restrictions, including participation in the

[34] N.J.ADMIN. CODE § 14:8-2.3(a) and §14:8-2.6.
[35] C.G.S.A. § 16-1(a)(27) and § 16-245(a)(1) through (15).
[36] N.H. REV. STAT. ANN § 362-F:2; 30 VT. STAT tit.30 § 8002 (2)(a).
[37] PA. STAT. ANN. tit 73 § 1648.2.; D.C. CODE. § 34-1432(c)(13) and § 34-1433(g)(1).
[38] CAL. PUB. UTIL. CODE § 399.12(e)(2).

state recycling program.[39] In short, there may be no examples in other states of a direct, unrestricted RPS subsidy to WTE facilities as the Covanta petition seeks here in New York. Although many states include MSW or WTE in an RPS type program, most do not include unrestricted combustion of MSW.

8. If the PSC Considers WTE as a Renewable Energy Resource Eligible for RPS Subsidy, Additional Measures Are Necessary

When a proposed action may have a significant impact on the environment, the State Environmental Quality Review Act ("SEQRA") requires agencies to prepare an environmental impact statement.[40] The Department of Public Service prepared a Final Generic Environmental Impact Statement ("FGEIS") in the proceeding on the Motion of the Commission Regarding a Retail RPS, dated August 26, 2004. The FGEIS concluded "The Action of developing and implementing an RPS for the electric energy retailed in New York State will result in environmental benefits in the form of emission reductions from fossil-fuel facilities that are expected to operate less than they would without an RPS policy."[41] Should the PSC consider WTE as an eligible renewable resource of energy under the RPS, the FGEIS must be updated with regard to potential adverse environmental impacts from WTE facilities. In addition, as noted above, should the PSC consider adding WTE, the RPS should be restructured so that WTE does not compete with emission-free renewable energy resources, such as solar and wind, for limited ratepayer subsidies.

[39] M.G.L.A. 25A § 11F(d); ME. A.D.C. 65-407 Ch. 311 §4(B)(1)(b)(viii).
[40] See Environmental Conservation Law (ECL), Article 8; 6 NYCRR Part 617.
[41] See Department of Public Service Final Generic Environmental Impact Statement in the proceeding on the Motion of the Commission Regarding a Retail RPS, August 26, 2004, at 5ES.

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