

# Removing Trash Incineration from Maryland's RPS

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When Maryland's legislature first adopted a Renewable Energy Portfolio Standard (RPS) in May 2004, trash incineration and hydroelectric dams were relegated to Tier 2, a tier that stayed at a constant 2.5% until being zeroed out for good starting 1/1/2019. States that use this tiered approach to an RPS consistently relegate trash incineration to a second tier where the credits are not worth much, and the percentage requirements tend to be lower and sometimes not set to grow at all and to be eliminated after at time, as in Maryland.

This is to recognize that large hydroelectric dams and trash incinerators should not compete with wind, solar or other Tier 1 resources because they're existing facilities that are dirty and damaging and cheap compared to new wind and solar since they can name their price – either because they're already subsidized by other means (trash incineration) or have been paid off decades ago (hydroelectric dams).

SB 690 of 2011<sup>1</sup> was a national anomaly. Maryland became the first state to bump trash incineration from Tier 2 to Tier 1, putting it in competition with wind and solar power. The bill was signed into law by Governor O'Malley while the trash incinerator industry's annual conference, the North American Waste-To-Energy Conference, was taking place in nearby Lancaster, PA, with attendees urged the day before to support this bill, which was celebrated at the conference the following day. The nation's largest trash incinerator was proposed, at that time, for southeast Baltimore, by a company called Energy Answers. The Baltimore Sun editorial board remarked:

"Perhaps it is a pure coincidence that Energy Answers International cut a \$100,000 check to the Martin O'Malley-led Democratic Governors Association on the very same day that Governor O'Malley indicated he would sign state legislation that could be worth millions to the company." <sup>2</sup>

Those millions never flowed to Energy Answers because their proposal was defeated in a campaign led by high school youth of color (including Goldman Environmental Prize winner, Destiny Watford). However, about \$38 million in Maryland ratepayer money flowed to three existing trash incinerators in the five years from 2012 through 2016. These Tier 1 renewable energy credits (RECs) were on top of another \$327,000 that went to a different set of four trash incinerators in those same years as Tier 2 RECs.

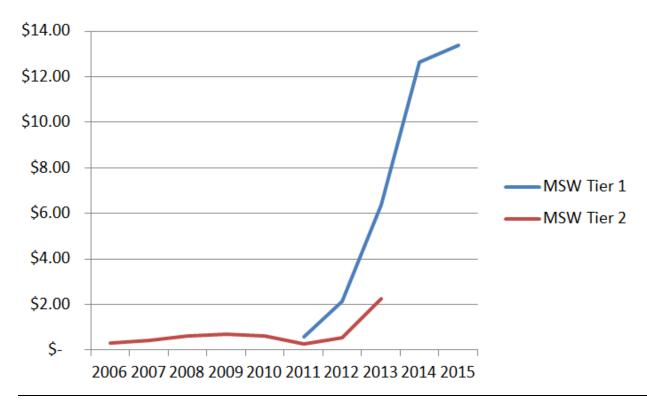
By moving trash incineration into Tier 1, SB 690 both increased the value of a REC by several times and ensured that these RECs would not expire, as originally planned, at the end of 2018.

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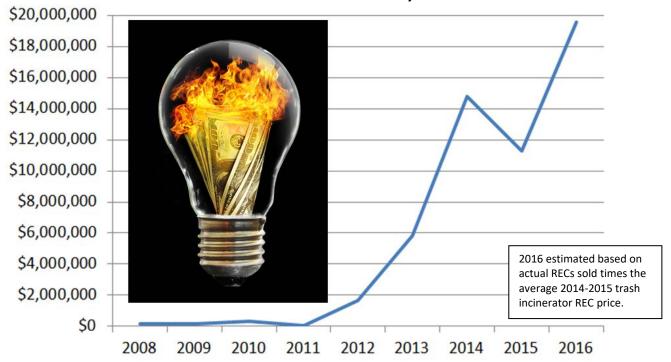
<sup>&</sup>lt;sup>1</sup> SB 690 of 2011. <a href="http://mgaleg.maryland.gov/2011rs/bills/sb/sb0690e.pdf">http://mgaleg.maryland.gov/2011rs/bills/sb/sb0690e.pdf</a>

<sup>&</sup>lt;sup>2</sup> "O'Malley DGA fundraising: The appearance of conflict – Our view: Donations to a national group Gov. O'Malley heads by firms doing business with the state are just a small part of a broken campaign finance system," Baltimore Sun Editorial, November 28, 2011. <a href="http://articles.baltimoresun.com/2011-11-28/news/bs-ed-dga-20111128">http://articles.baltimoresun.com/2011-11-28/news/bs-ed-dga-20111128</a> 1 o-malley-campaign-governor-o-malley-contributions

# Trash Incineration (Municipal Solid Waste, or MSW) Renewable Energy Credit (REC) cost under the Maryland RPS



# Total Money Going to Trash Incinerator industry under the Maryland RPS (Tiers 1 and 2 combined)



#### Trash Incinerators relevant to the MD RPS Program:

Operator	Facility Name	City	St	MW	Max MWh	Sold Tier 1 RECs	Sold Tier 2 RECs
Covanta	Montgomery County Resource Recovery Facility	Dickerson	MD	63.4	555,384	Υ	Υ
Wheelabrator	Wheelabrator Baltimore / BRESCO	Baltimore	MD	60	525,600	Υ	Υ
	Covanta Fairfax / I-95 Energy/Resource Recovery						
Covanta	Facility	Lorton	VA	93	814,680	Υ	
Covanta	Alexandria/Arlington Resource Recovery Facility	Alexandria	VA	22	192,720	Eligible	
Energy Recovery							
Operations	Harford Waste-to-Energy Facility [closed in 2016]	Joppa	MD	1.2	10,512	Υ	
Covanta	Union County Resource Recovery Facility	Rahway	NJ	42	367,920		Υ
	Covanta Plymouth Renewable Energy / Montenay						
Covanta	Montgomery	Plymouth	PA	32	280,320		Υ
Wheelabrator	Wheelabrator Portsmouth / SPSA WTE / VP Gosport	Portsmouth	VA	60	525,600		Υ

Only trash incinerators in Maryland or near Maryland's borders are eligible to sell Tier 1 RECs. Trash incinerators in a much wider geography are eligible to sell Tier 2 RECs. In the chart above, the two remaining trash incinerators in Maryland, and the two in northern Virginia (6 miles from Maryland's border) are eligible, though the Alexandria facility has not sought to sell RECs to MD yet. The Covanta Fairfax incinerator is the third largest in the nation in terms of the amount of waste actually burned, and was only approved to start selling RECs to MD in late 2015. The Harford, MD trash and tire incinerator was the smallest of the three that Maryland has had in recent decades. It closed in March 2016.

There are many other incinerators in nearby states that could sell Tier 2 RECs, but are not listed here. No Tier 2 trash incineration RECs were sold to Maryland since 2013. This is most likely because the facilities that can sell their credits as Tier 1 RECs are doing so, and the others that can only qualify as Tier 2 RECs are selling into other states since there's no special draw to sell them to Maryland.

#### Trash Incinerator RECs sold to MD RPS

(2016 REC distribution for Maryland and 2016 REC prices estimated)

St	City	Tier	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total REC \$
MD	Dickerson	1					269,126	250,820	537,957	339,710	401,379	\$18,756,354
MD	Dickerson	2	31,428	13,688	38,761	31,423	93,029	18,064				153,964
MD	Baltimore	1					212,738	310,625	315,378	248,377	401,379	14,981,429
MD	Baltimore	2		1,363	78,101	31,559	25,378	43				72,338
MD	Joppa	1						949	941			17,959
VA	Lorton	1								7,440	298,320	3,982,511
VA	Portsmouth	1	115,459	176,065	196,444	118,400	41,673	55,233				493,042
NJ	Rahway	2	50,001	42,426	90,103	18,613		23,690				173,887
PA	Plymouth	2	14,858	14,714	1,081	1,826						20,236

#### How polluting is trash incineration?

Trash incineration is the most polluting way to manage waste or to make electricity. Per unit of energy produced, it's dirtier than burning coal. Per ton of waste disposed, it's far more polluting than landfilling (its toxic ash still ends up in landfills, with about 30 tons of ash produced for every 100 tons of waste burned; the other 70 tons end up as air pollution).<sup>3</sup>

To make the same amount of energy as a coal power plant, trash incinerators release 28 times as much dioxin than coal, 2.5 times as much carbon dioxide (CO2), twice as much carbon monoxide, three times as much nitrogen oxides (NOx), 6-14 times as much mercury, nearly six times as much lead and 70% more sulfur dioxides.<sup>4</sup>

The four trash incinerators eligible for Tier 1 RECs in Maryland are major polluters in their jurisdictions. According to the latest EPA National Emissions Inventory data (for 2014):

#### Wheelabrator Baltimore (Baltimore City, MD)

- The city's largest air polluter, responsible for 36% of the city's air pollution from industrial sources.
- #1 air pollution source in the city of mercury, benzo[a]pyrene, hydrochloric acid, sulfur dioxide, lead, and nitrogen oxides.
- 4<sup>th</sup> largest mercury polluter in all of Maryland.

#### Montgomery County Resource Recovery Facility (Dickerson, MD)

- Montgomery County's 2<sup>nd</sup> largest air polluter, responsible for 17% of the county's air pollution from industrial sources.
- #1 air pollution source in the county of hydrochloric acid and cadmium, and #2 source of nitrogen oxides, particulate matter, chromium VI, sulfur dioxide, lead, and mercury.
- Had a major trash pile fire in December 2016 that burned for nearly two weeks; one of six such fires in the past few years, more than any incinerator in Covanta's 40-plant U.S. fleet.

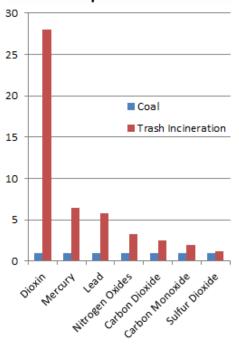
#### Covanta Fairfax (Lorton, VA)

- Fairfax County's largest air polluter, responsible for 75% of county's air pollution from industrial sources.
- Had a major trash pile fire in February 2017 that burned for nearly two weeks, causing the plant to close for 11 months.

#### Covanta Alexandria/Arlington (Alexandria, VA)

Largest air polluter in Alexandria.

# Number of times more polluting trash incineration is compared to coal





Covanta Fairfax fire, February 2, 2017

<sup>&</sup>lt;sup>3</sup> Presentation of Analysis done for Washington, DC Department of Public Works comparing incineration to landfilling by 10 environmental criteria. <a href="www.energyjustice.net/files/incineration/incineration">www.energyjustice.net/files/incineration/incineration</a> vs landfills DC.pdf

<sup>&</sup>lt;sup>4</sup> "Trash Incineration More Polluting than Coal," Energy Justice Network analysis of U.S. Environmental Protection Agency and state environmental agency data. www.energyjustice.net/incineration/worsethancoal

## Who are Maryland's largest air polluters?

Trash incinerators consistently rank among the worst air polluters in any geography, alongside airports, coal power plants, cement kilns, and paper mills. Maryland is no exception. Looking at the largest polluters in the entire state, based on EPA's National Emissions Inventory latest data (2014), we find:

Rank	Facility	<b>Lbs of Air Pollution</b>	Percentage of total
1	Luke Paper Company	41,775,355	21%
2	Raven Power Fort Smallwood LLC	36,752,981	
3	NRG Chalk Point, LLC	18,698,824	
4	Baltimore-Washington International	14,376,897	
5	NRG Morgantown Generating Station	12,029,077	
6	Lehigh Cement Company - Union Bridge	8,727,522	
7	Patuxent River NAS/Trapnell Field	8,244,040	
8	C.P. Crane LLC	6,833,393	
9	NRG Dickerson Generating Station	5,972,532	
10	AES Warrior Run	5,791,947	
11	Holcim (US), Inc.	4,529,901	
12	Wheelabrator Baltimore, LP	3,158,565	1.6%
13	Montgomery County Resource Recovery Facility	1,481,848	0.7%
	507 Other Facilities	32,025,624	
	520 Total Facilities	200,398,507	

Three of Maryland's top air polluters (highlighted) get rewarded as renewable energy. Only because the other sources are much larger facilities do the two trash incinerators rank just after the Luke Paper mill, two airports, two cement kilns and several coal power plants. While the incinerators represent 0.38% of Maryland's 520 industrial air polluters, they account for 2.3% of the air pollution, or 6 times what they'd release if they were only as polluting as the average Maryland air polluter. Of course, Luke Mill stands out with an astounding 21% of the total, and is rewarded by the RPS due to their burning of black liquor.

Rank	Facility	Lbs of Mercury	Percentage of total
1	Luke Paper Company	107.4	24.1%
2	Lehigh Cement Company - Union Bridge	75.0	
3	NRG Morgantown Generating Station	61.3	
4	Wheelabrator Baltimore, LP	52.6	11.8%
5	Holcim (US), Inc.	44.2	
6	Raven Power Fort Smallwood LLC	35.5	
7	NRG Chalk Point, LLC	29.7	
8	C.P. Crane LLC	12.1	
9	NRG Dickerson Generating Station	10.1	
10	Harford County Resource Recovery Facility	6.7	1.5%
11	University of Maryland – Baltimore	3.6	
12	Montgomery County Resource Recovery Facility	1.5	0.3%
	81 Other Facilities	<u>6.2</u>	
	93 Total Facilities	446.0	

On mercury, we find that the three trash incinerators (before Harford closed) were just 3.2% of Maryland's 93 mercury emitting facilities, but accounted for 14% of their mercury pollution, or 4 times what they'd release if they were only as polluting as the average Maryland mercury emitter.

Rank	Facility	Lbs of Sulfur Dioxide	Percentage of total
1	Luke Paper Company	33,969,782	40%
2	Raven Power Fort Smallwood LLC	25,514,605	
3	NRG Chalk Point, LLC	7,866,418	
4	NRG Morgantown Generating Station	5,992,145	
5	C.P. Crane LLC	3,780,084	
6	AES Warrior Run	2,335,840	
7	Holcim (US), Inc.	1,446,004	
8	NRG Dickerson Generating Station	1,377,201	
9	Wheelabrator Baltimore, LP	621,703	0.7%
10	Baltimore-Washington International	583,515	
11	Naval Support Facility, Indian Head	567,143	
12	NRG Vienna	319,916	
13	Patuxent River NAS/Trapnell Field	256,230	
14	Montgomery County Resource Recovery Facility	139,809	0.2%
	437 Other Facilities	<u>919,350</u>	
	451 Total Facilities	85,689,746	

On sulfur dioxide ( $SO_2$ ), we find that the two trash incinerators were just 0.44% of Maryland's 451  $SO_2$  emitting facilities, but accounted for 0.9% of their  $SO_2$  pollution, or twice what they'd release if they were only as polluting as the average Maryland  $SO_2$  emitter. Most shockingly, the Luke Paper mill is solely responsible for a staggering 40% of the total  $SO_2$  emissions from Maryland industry. The (now closed) Harford incinerator wasn't far behind, and was the  $16^{th}$  largest  $SO_2$  emitter in 2014.

Rank	Facility	Lbs of Nitrogen Oxides	Percentage of total
1	NRG Chalk Point, LLC	7,754,613	
2	Raven Power Fort Smallwood LLC	7,276,245	
3	Lehigh Cement Company - Union Bridge	5,803,676	
4	Luke Paper Company	5,371,558	9.3%
5	Baltimore-Washington International	5,204,048	
6	NRG Dickerson Generating Station	3,374,691	
7	Patuxent River NAS/Trapnell Field	2,712,586	
8	NRG Morgantown Generating Station	2,603,491	
9	C.P. Crane LLC	2,494,731	
10	Holcim (US), Inc.	2,346,060	
11	Wheelabrator Baltimore, LP	2,151,526	3.7%
12	AES Warrior Run	1,104,350	
13	Montgomery County Resource Recovery Facility	853,428	1.5%
14	Harford County Resource Recovery Facility	568,538	1.0%
	447 Other Facilities	<u>7,857,752</u>	
	461 Total Facilities	57,477,292	

Finally, on nitrogen oxides (NOx), which triggers asthma attacks, we find that the three trash incinerators (before Harford closed) were just 0.7% of Maryland's 461 NOx emitting facilities, but accounted for 6.2% of their NOx pollution, or nearly 10 times what they'd release if they were only as polluting as the average Maryland NOx emitter. In fact, the Wheelabrator Baltimore incinerator's NOx emissions are so high that they represent 59% of the total NOx pollution from Baltimore industry, equivalent to half of the city's cars or trucks.

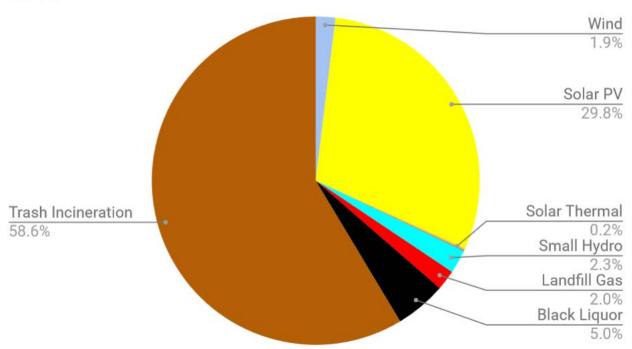
# How much space is trash incineration taking up in the MD RPS?

Trash incineration took up 14.4% of the RECs serving Maryland in 2016.

However, most (82%) of the renewable energy credits (RECs) serving Maryland's RPS are from out-of-state. If you look at just the Maryland-based facilities being supported by the Maryland RPS, trash incineration made up 59% of these RECs in 2016. These are RECs going solely to the trash incinerators in Baltimore City and Montgomery County.

# Maryland In-State "Renewable" Generation Supported by MD RPS

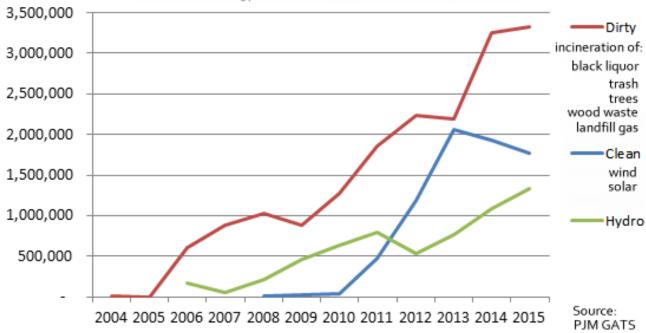




This does not count the rapidly increasing amount of RECs flowing to the Covanta incinerator in Lorton, VA, which is the largest nitrogen oxide polluter within 20 miles of Washington, DC (even worse than each of the two airports in that radius).

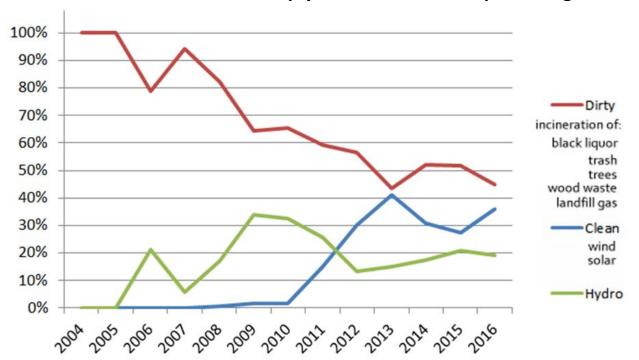
# Renewable Energy in Maryland

Renewable Energy Credits Billed to MD Electric Customers

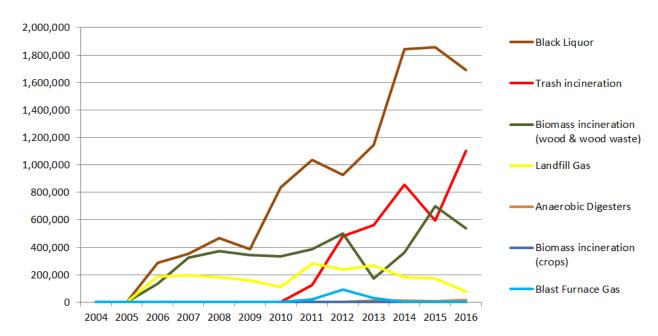


Combustion sources are historically the largest category in the MD RPS, making it one of the dirtiest state "renewable" energy mandates in the nation. Except where it dipped below 50% in two years, smokestack technologies have made up a majority of the "renewable" energy sources serving Maryland.

## Resources used to comply with MD RPS, as a percentage:



## Combustion Sources in the RPS (# of RECs):



For most of the time since SB 690 moved trash incineration to Tier 1, trash incineration has been the second largest component of the dirty energy fraction of the RPS mix.

As Montgomery County Council's 11/28/2017 resolution states, all combustion sources are dirty energy and ought to be eliminated entirely from the RPS by 2020, including black liquor, burning of trees, wood waste, landfill gas, and digester gas.<sup>5</sup>

The difference between eliminating trash incineration when it was originally to be eliminated (1/1/2019) and allowing the gradual phase-out approach could mean \$300 million or more to the trash incineration industry that ought to be going to wind and solar energy.

Through 2016, over \$37 million in ratepayer money has gone to the trash incineration industry, via the sale of 3,720,418 RECs. The removal of trash incineration by 1/1/2019 (the original Tier 2 sunset timeline), as advocated in the RPS Cleanup Bill<sup>6</sup>, would allow the industry to market as many as about 3,444,000 more RECs. If the slow phase-out approach is used, as was initially proposed in the Clean Energy Jobs Act, another 9,770,638 RECs could go to the industry, and if trash incineration REC prices follow the trends to date, that difference would be worth as much as about \$333 million to the trash incineration industry.

The initial phaseout timing in the Clean Energy Jobs Act would have allowed a 69% increase in trash incineration RECs sold each year in 2021, 2022, and 2023 over the incineration industry's best year yet (2016).

<u>REC sales vs. REC retirement:</u> RECs are generated when one megawatthour of electricity is created by an eligible "renewable" energy source. They're initialed *owned* by the owner of the source and *sold* to an electricity supplier who *retires* it when submitting it to the state to meet their annual RPS obligation. RECs sold by the end of 2018 would still be able to be retired by energy suppliers for the 3-year lifetime of the RECs. The generous increase in incinerator REC sales through 2023 is possible because RECs can be *banked* for 3 years.

 <sup>&</sup>quot;Resolution to support strengthening Maryland's Renewable Portfolio Standard Requirement," Montgomery County Council, 11/28/2017. <a href="www.montgomerycountymd.gov/COUNCIL/Resources/Files/res/2017/20171128\_18-968.pdf">www.montgomerycountymd.gov/COUNCIL/Resources/Files/res/2017/20171128\_18-968.pdf</a>
RPS Cleanup Bill, <a href="www.energyjustice.net/files/md/2018RPSCleanupBill.pdf">www.energyjustice.net/md</a>

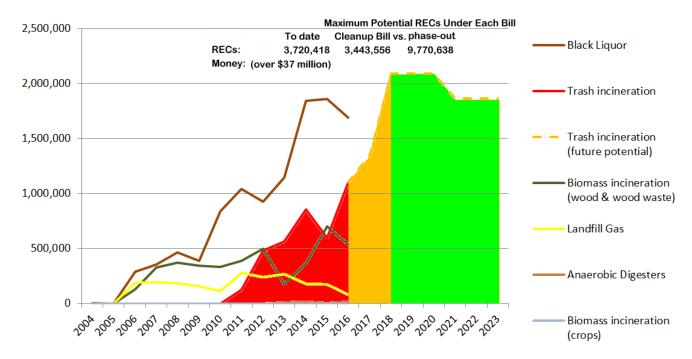
# Maximum trash incinerator REC sales scenario under the gradual phase-out in original Clean Energy Jobs Act

		Max RECs that			2021	2022	2023
	<b>REC Retirement Cap</b>	can be sold	Retired	Banked	Retired	Retired	Retired
2021	1,231,290	1,864,623	1,231,290	633,333			
2022	1,231,290	1,864,623	1,231,290	633,333			
2023	1,231,290	1,864,623	1,231,290	633,333			
2024	850,000		850,000		633,333	216,667	
2025	650,000		650,000			416,666	233,334
2026	400,000		400,000				399,999

The maximum annual number of trash incinerator RECs ever retired in the MD RPS was in 2016, with 1,101,078 RECs retired. The REC retirement cap under the original Clean Energy Jobs Act phaseout, by allowing the amounts in 2024, 2025, and 2026 to be retired from the use of RECs banked in 2021, 2022, and 2023, means that trash incinerators can sell as many as 1,864,623 RECs each year to electric suppliers in 2021 through 2023. This amounts of a 69% increase in REC sales in 2021-2023 over the industry's best year (2016). The industry only needs to operate at 89% capacity to meet this maximum REC sales scenario.

To better visualize this, we've extended the previous trend line chart to project the maximum trash incinerator REC sales scenario. The difference between an immediate elimination of incineration by 1/1/2019 (the original RPS plan when it was in Tier 2) and the slower phase-out is represented by the green part of the chart.

The red section is REC sales through 2016, representing over 3.7 million RECs retired and over \$37 million to the industry. The yellow section is the extra amount the industry will get if the tighter time frame passes to eliminate incineration by 2019, meaning another 3.4 million RECs could be sold in that time. The 9.77 million RECs (potentially worth about \$333 million) in the green section is what should be avoided by adopting this tighter time frame, removing incineration by 2019 as originally envisioned when the RPS was first adopted.



#### Notes on the methodology behind the above chart:

The dollar amount of 'to-date' money to trash incinerators could be off a bit, since hard data for 2016 REC prices won't be out until later this month (January 2018). This assessment assumes that they're the same as 2015, which is probably conservative, since they increase each year. Including estimates for 2016, the trash incinerator industry made \$37.7 million in Tier 1 REC sales through 2016. It's \$38.7 million if you include Tier 2 REC sales (Tier 2 credits are worth much less), which stopped happening in 2015.

In the chart above, the 2017 data point for incineration is low as it is because the Lorton, VA incinerator was closed for all but 5 weeks in 2017. The maximum level (2018-2020) is based on all four incinerators running at full blast 100% capacity, which is highly unusual, but not totally impossible, as some incinerators have actually run beyond their ton/day capacity and generation amounts can be outside of expected boiler rating ranges. That's why it's a maximum. The 2021-2023 level is the "capped" level in the phaseout, including the credits they can sell to be banked by electric suppliers for 2024-2026 RPS use. That capped level is actually a realistic amount to expect they can generate, as the four incinerators only have to collectively operate at 89% capacity to meet that level, and that's a more typical capacity factor. A "capacity factor" is the percentage of time during a year that a facility operates.

Even if the trash incinerator REC prices never increase from their peak in 2015 (2016 prices still unknown), the difference between the two time frames is up to \$140,697,187 going to the incinerator industry (if they sell the maximum credits possible). Even though they probably won't produce and sell the maximum number of credits, the REC prices are sure to increase as they have every year, which could more than compensate, so it's conservative to assume that the gradual phase-out timeline lets the incinerator industry get at least \$140 million more than they would under a more immediate elimination. That's across the four incinerators (Dickerson, Baltimore, Lorton, and Alexandria).

The \$333 million figure is from a more realistic scenario looking at the trendline of where Tier I trash incinerator REC prices would be if they followed the same increase trend through 2023. This trendline has trash incinerator REC prices increasing from \$13.40/REC in 2015 to \$43.10 in 2023. It's based on the four incinerators operating at 89% capacity, maximizing their potential sales under the phase-out timeline. At just 80% capacity, following the REC price trends, the phase-out timing allows the four trash incinerators collectively to make another \$300 million from 2019 through 2023 instead of the maximum possible \$333 million.

## "Waste-to-Energy" vs. "Refuse-Derived Fuel"

Maryland's RPS includes two types of trash incineration. § 7-701(r) defines a Tier 1 renewable source to include both "waste-to-energy" and "refuse-derived fuel."

Refuse-derived fuel (RDF) is basically processed trash. It's trash where metal and glass (which don't burn) are removed, and the remainder (mostly plastic and paper) is turned into pellets to be burned, either in a trash incinerator or a coal power plant or industrial boiler.

Since Maryland's RPS law allows co-firing, a coal power plant could burn RDF and the RDF portion of their electricity production would earn RECs. It's a strategy that could help keep coal power plants operating. Even though the emissions from burning RDF are worse than those from coal burning, any climate regulation like the Clean Power Plan, ignores the higher CO<sub>2</sub> levels from RDF

burning by not counting them at all, thus further incentivizing coal power plants to burn RDF. Coal power plants aren't designed with the additional pollution controls that trash incinerators have. The same is true for paper mill and cement kilns which are also encouraged to burn these "alternative" fuels.

The Energy Answers incinerator that was proposed for Baltimore (and defeated after a five year fight) would have burned RDF as well as tires, shredded cars, and wood waste ("biomass"). The RDF and wood waste would have been able to earn RECs under the MD RPS.

While RDF has not been used in the MD RPS yet, the potential is large. RDF can be produced anywhere so long as it's burned within or near Maryland's borders in any incinerator, coal power plant, or other boiler capable of making electricity.

In the region are:

- Waste Management Inc.'s large SpecFuel plant in Philadelphia, pelletizing Philadelphia's trash and marketing it within the region.
- Entsorga just built an RDF production plant in Martinsburg, WV.
- Washington County, MD had an RDF production plant proposed that was given a long-term contract in recent years.
- Harford County, MD also had such a proposal a handful of years ago, possibly in order to serve the nowdefeated Energy Answers incinerator in Baltimore.

"Waste-to-energy" is an unscientific public relations term meant to describe conventional trash incinerators that produce electricity and/or steam heat. Waste is not actually turned "into" energy as matter cannot be turned into energy without a nuclear reaction, and thankfully that's not what trash incinerators do. They simply turn trash into toxic ash and toxic air emissions while recovering a small portion of the energy that was used to make the materials in trash. Recycling and composting the same materials actually saves 3-5 times more energy than a trash incinerator can "create" by burning (destroying) them, requiring these materials to be extracted and produced again from raw resources. For more on why trash incineration is not "waste-to-energy," see www.energyjustice.net/incineration/waste-to-energy





Since RDF qualifies for Tier 1 credits in Maryland, there's an incentive for companies to ship their RDF to burn in Maryland's coal power plants rather than do so in nearby states.

#### What are the effects of RPS incinerator incentives?

**Existing incinerators:** RPS incentives help keep existing trash incinerators open. The major waste contracts for the trash incinerators in Baltimore City, Montgomery County, and in Fairfax County, VA all expire in 2021. The local decisions on renewing these contracts will take place around 2019-2020. Keeping upwards of \$300 million flowing to these incinerators and the Alexandria, VA incinerator through 2023 interferes with the efforts to get these incinerators closed in the near-term.

Energy Justice Network is leading campaigns to seek the closure of Maryland's incinerators by the end of their contract terms in 2021. Baltimore City and Montgomery County councils have both passed multiple resolutions pointing in this direction and will be considering legislation in 2018 toward these ends.

<u>Proposed incinerators:</u> In the past decade, the following communities in the area faced proposals for new trash incinerators, all of which were defeated by community and political opposition, in some cases, absorbing up to 8 years of people's lives to stop these threats that are incentivized by the RPS:

- Frederick, MD
- Baltimore City, MD
- Prince George's County, MD
- Washington County, MD
- Carroll County, MD
- Wicomico County, MD
- Washington, DC
- · Stafford, VA

The status of trash incineration as a Tier 1 renewable in the Maryland RPS was named as a reason why the Baltimore Regional Cooperative Purchasing Committee had its 22 public entity members sign power purchase agreements with the proposed Energy Answers incinerator. It took creative ongoing campaigning led by youth at the nearby Benjamin Franklin High School to get these contracts canceled.

<u>Clean energy:</u> With the sole exception of 2014, in every year, trash incineration REC prices have undercut wind power, competing directly with wind for Tier 1 RECs. Every year that trash incineration remains in Tier 1, means less ratepayer money supporting wind power or other Tier 1 renewables.

**Zero waste:** All subsidies pick winners and losers. When subsidies were immediately granted to incinerators and landfills in the RPS, and later massively (and immediately) increased for incinerators with SB 690, that didn't give reuse, recycling and composting industries a chance to adjust to the market pressure. It immediately put the dirtiest technologies in the waste hierarchy at a competitive advantage vs. the Zero Waste solutions that the state has been trying to advance.

<u>Timing of incentives:</u> SB 690 passed on 5/19/2011 and took effect on 10/1/2011 – boosting incinerator incentives only 135 days later, which is very little adjustment time for the reuse, recycling and composting industries that compete with incineration. If the Clean Energy Jobs Act became law on 5/19/2018, it would be 226 days before the restrictions take effect, at the new year.

At the outset, the trash incineration industry knew that they were no longer to be in the RPS after 2018, once Tier 2 is eliminated. That's obviously why they spent so much money to get legislative support for SB 690. If their eligibility is ended after 2018, the industry will still have enjoyed seven years of large bonuses from 2012 through 2018. It's time to end these dirty energy subsidies when the RPS was originally intending to.

<u>Incentives may be undeserved:</u> The Public Service Commission is supposed to enforce the RPS, which requires that incinerators comply with environmental laws and draw waste from areas that comply with Maryland's mandated recycling rates. The PSC is doing nothing to assure compliance with these standards. Some incinerators may be benefitting from millions in RECs that they weren't eligible for.