Testimony Supporting SB590 AC.pdf
Uploaded by: Abigail Cocke
Position: FAV

Testimony Supporting SB0590
Senate Education, Energy, and the Environment Committee
February 28, 2023

Position: SUPPORT

Dear Chair Feldman and Members of the Committee,

As a resident of District 43 in Baltimore City and as someone who has devoted much of my life to understanding and working on issues of environmental/community justice and sustainability (though I'll note that this testimony is being submitted in my personal capacity and not in any professional role), I am writing to express my ***strong support of SB0590, the Reclaim Renewable Energy Act***. This bill will make sure that subsidies for renewable energy in our state go to projects that actually lead us to a sustainable world and NOT a more degraded, sickly world by removing three types of energy from our state's Renewable Portfolio Standards – trash incineration, woody biomass, and methane gas from factory farms – all of which exacerbate climate change while harming public health, and none of which are part of a clean energy future.

We are in the midst of an acute climate crisis that threatens all of us, especially in coastal states like Maryland, and we need to be taking any and all actions we can NOW to avert the worst impacts of that crisis. Did you know that the trash incinerator in Baltimore emits twice as much greenhouse gasses per amount of energy produced, on average, as each of the coal plants located in Maryland? If that were all the harm it did, that would be enough reason not to call it "renewable", but on top of that it's also extremely bad for our air quality and thus our health. Baltimoreans are already suffering compounding environmental injustices that increase suffering and decrease lifespan, and can ill-afford for the state to prop up this private industry that is pumping carcinogens into our skies. It's disgraceful that we are the only state in the nation that somehow considers such a harmful practice on par with wind and solar energy.

For these reasons and many more, please support SB590 and stop sending Maryland's renewable energy money to facilities that emit such enormous amounts of greenhouse gasses while harming our health! Thank you.

Sincerely,

Abigail Cocke
3616 Rexmere Road
Baltimore, MD 21218

Chesapeake PSR_SB590_AkankshaSuresh_fav.pdf
Uploaded by: Akanksha Suresh
Position: FAV

Testimony Supporting SB590

Senate Education, Energy, and the Environment Committee

February 27, 2023

Position: SUPPORT

Dear Chair and Members of the Committee,

As residents of District 46 and medical students concerned about climate change for the health and safety of our patients, we are writing to express our strong support of SB590, the Reclaim Renewable Energy Act, which will make sure that our subsidies for renewable energy through the Renewable Portfolio Standard are going toward actual renewable energy. We are in a climate crisis, and we cannot afford to be spending our renewable energy money on facilities that emit greenhouse gases. Now is the time to double down on Maryland's commitment to truly renewable energy and subsidize the facilities that are emissions-free.

Burning trash, chicken litter, wood waste, and manufacturing methane all have detrimental effects on the environment. This includes pollution, harming nearby communities' health, and contributing to the climate crisis. This equates to a bad investment of public dollars that every Maryland utility ratepayer contributes to. Every Renewable Energy Credit that goes toward a facility that emits greenhouse gases is a Renewable Energy Credit taken away from a facility that does not- an egregious waste of public money. We encourage you to pass the Reclaim Renewable Energy Act so that those funds can support new wind and solar power instead.

Green Energy Can Mitigate the Long-Term Impact of Climate Change on Human Health

Green energy sources also help to reduce greenhouse gas emissions, which contribute to climate change and increased disease burden. Climate change has numerous negative health impacts, including an increase in the frequency and intensity of heat waves, and other extreme weather events, which can lead to illness and death.

- **More Frequent and Severe Allergies:** Climate change can lead to longer and more intense allergy seasons due to increased levels of pollen and other allergens in the air. This can increase the risk of allergic reactions and asthma hospitalizations (Maryland Department of Health, 2020).
- **Higher Incidence of Infectious Diseases:** Climate change can lead to the spread of disease-carrying insects, such as mosquitoes and ticks, which can increase the risk of diseases such as Lyme disease, West Nile virus, and dengue (The New England Journal of Medicine, 2022).
- **Increased Risk of Heat-Related Illness:** As temperatures rise, there is an increased risk of heat exhaustion and heat stroke, particularly for vulnerable populations such as the elderly and those with chronic medical conditions (Maryland Department of Health, 2020).

"Dirty" Energy Sources Negatively Impact Quality of Life of Maryland Residents

As medical students and future physicians, we are acutely aware of the significant negative health impacts of air pollution from "dirty" energy sources. Exposure to air pollution has been linked to a gamut of diseases, including asthma, lung cancer, and cardiovascular diseases, which severely impact both quality of life and economic productivity of Maryland residents. Scaling up Maryland's green

energy sources would have a substantial positive impact on the health of our state's residents. A 2018 study estimated that transitioning to clean energy could prevent over 60,000 premature deaths annually in the United States (Environmental Health Perspectives, 2018). By transitioning away from "dirty" energy sources, Maryland can reduce air pollution, and improve respiratory health, leading to a healthier and more prosperous state.

Subsidizing Trash Incineration Perpetuates Negative Health and Financial Outcomes
Trash incineration poses a significant risk to public health and the environment. Incinerators emit harmful pollutants, like mercury, dioxin, nitrogen oxides and fine and ultrafine particulate matter (PM2.5), that have been linked to cancer and other diseases. Further, incinerators emit more greenhouse gases and mercury per unit of energy produced than coal plants (Energy Justice Network). Subsidizing these incinerators increases their use compared to cheaper and more sustainable waste management alternatives, such as composting.

A notable example of the harmful health effects of incinerators is their release of mercury. Mercury gets into streams and lakes and is concentrated in fish which we then eat. Mercury is toxic to the developing brain of fetuses, infants and children and is associated with abnormalities in cognition, thinking, memory, and language that can be severe if exposure is significant (Journal of Preventive Medicine and Public Health, 2012).

The Maryland Department of Natural Resources found RPS to only play a minimal role in reducing emissions. Maryland's RPS was created to encourage the development of renewable energy sources, but has been used to subsidize trash incineration facilities. Emissions from these facilities overwhelm emission reductions from those truly renewable energy sources supported by RPS. Furthermore, millions of dollars of RPS funding goes out of state to support biomass facilities in Virginia that do not meet Virginia’s RPS sustainability requirements. With the new guidelines on what is considered renewable energy, dictated by SB590, emissions will be reduced to a greater extent as compared to what it currently is.

By transitioning to green energy, Maryland can mitigate climate change, reduce the negative health impacts of air pollution, and create a healthier and more sustainable future for its residents. For all of these reasons and many more, please support SB590 and end “renewable energy” subsidies for greenhouse gas-emitting energy sources in Maryland. Thank you.

Sincerely,
Abigail Fleischlii, Medical Student
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References

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WKC SB0590 FAVORABLE Testimony.pdf
Uploaded by: Alexander Villazon
Position: FAV

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February 28, 2023

FAVORABLE Report – SENATE BILL 0590: Reclaim Renewable Energy Act

Dear Chairperson and Members of the Committee,

We are writing in strong support of **SB0590** on behalf of Waterkeepers Chesapeake, a coalition of seventeen Waterkeepers, Riverkeepers, and Coastkeepers working to protect and maintain the ability of the public to safely enjoy the waters of our State. Waterkeepers Chesapeake supports eliminating polluters like trash incineration and utility-scale biogas from Maryland's Renewable Portfolio Standard, and put clean energy subsidies where they belong: truly renewable, emission-free energy.

Since the RPS program was created, the energy sources considered "renewable" have gotten increasingly dirtier - harming communities of color already overburdened with pollution and diminishing Maryland's chances of cleaning up our grid to act on the climate crisis. Biogas, one of the dirtiest sources on the RPS, is primarily methane but can also include other gasses like carbon dioxide and hydrogen sulfide and is produced when organic material like farm animal waste breaks down. The gas itself is comparable to fracked natural gas, causing similar environmental harm. Research estimates 2 to 4 percent of methane, a potent greenhouse gas contributing to climate change, is lost to the atmosphere in leaks during biogas production; in some cases, up to 15 percent.

The **Reclaim Renewable Energy Act** will remove sources of dirty energy like biogas from the Renewable Portfolio Standard, which will cut emissions while creating jobs and lowering utility bills. Maryland's current RPS considers burning trash and burning chicken litter, amongst other dirty sources, as "renewable energy." Since factory farms produce unmanageable volumes of waste, digester facilities are often touted as a solution to the environmental issues that waste creates. However, this is a false promise

- sending animal waste to a digester creates methane but does nothing to mitigate the significant air quality issues associated with factory farms. By considering biogas from poultry waste and other waste-to-energy sources a qualifying source of renewable energy in Maryland, the state is supporting or subsidizing a dirty energy source when better, cleaner alternatives like wind and solar exist.

Subsidizing dirty energy and pushing the expansion of biogas facilities would create a waste stream that is not well suited for the Eastern Shore of Maryland. Digestate, a byproduct of anaerobic digestion, can contain concentrated nutrients like phosphorus, which is harmful when applied as a fertilizer in areas with already high soil phosphorus levels. Overapplying phosphorus-rich manure from poultry operations has already polluted local waterways and the Chesapeake Bay. Digestate may also contain other contaminants, depending on what is used to produce biogas.

Waterkeepers Chesapeake supports this bill and its expressed goals. By preventing the inclusion of dirty energy sources in the RPS, Maryland can show its priorities are with protecting communities and the environment from the harms these false solutions cause. Therefore, we believe these requirements would properly be carried out under **SB0590** in order to clean the RPS and combat the climate crisis. Maryland cannot afford another year of throwing our “renewable energy” money away on polluters.

For these reasons we support **SB0590** and its goals.

Alexander D. Villazon, Esq.
Climate & Justice Legal Fellow
Waterkeepers Chesapeake
alex@waterkeeperschesapeake.org

SB590 Testimony - Andrew Hinz.pdf
Uploaded by: Andrew Hinz
Position: FAV

Testimony Supporting SB590
Senate Education, Energy, and the Environment Committee
February 28, 2023

Andrew Hinz
1427 Park Avenue
Baltimore, Maryland 21217
ahinz61@outlook.com
443-617-4079

Position: SUPPORT

As a lifelong, 62 years, Maryland resident and ratepayer I demand that you to pass SB590, the Reclaim Renewable Energy Act, for the following reasons:

1. **Our soils are being depleted at an unsustainable rate.** As much organic material as practical must be returned to our soils and we must transition to other sustainable agriculture practices. Organic material burned in municipal incinerators, chicken litter, and wood must be returned to the soil from which it came.
2. **Our atmosphere has too much CO2 and methane in it.** We cannot stop the extreme weather and rising sea level, it is too late—nature must run its course and it will take centuries after we stop emitting too much CO2 and methane for our atmosphere to recover. Burning municipal waste that can be composted and burning plastic that should be recycled or not produced in the first place will increase the death toll from our overheated atmosphere, as will extracting methane from chicken litter rather than composting the litter and avoiding methane production, as will burning wood rather than sequestering its CO2 by returning it to the soil.
3. **We are killing people in environmental justice communities.** Municipal waste incinerators are predominantly sited in environmental justice communities and cause significant numbers of premature deaths, illness, and additional health costs. Methane extraction and consumption pollutes the air and is dangerous. Wood pellet sourcing is harming environmental justice communities throughout the southeast United States.
4. **Electricity produced by Waste-to-Energy schemes is very expensive.** Electricity produced from municipal waste incinerators, methane extracted from organic waste, and burning wood is more expensive than electricity produced from solar, wind, or water driven generators, by far.
5. **Two-hundred million dollars is a lot of money to waste.** More than 200 million dollars has been diverted from subsidizing truly clean and truly renewably generated electricity to enrich dirty, harmful, and expensive schemes to subsidize mismanaged waste issues (burning things that must be composted). Imagine the number of community solar farms or electric buses we could have right now with that lost money.
6. **Baltimore City has a waste solution ready that does not require incineration**. The environmental justice community in South Baltimore is working with the city to host a municipal-scale composting facility and a state-of-the-art recycling facility. Their community will be free of the toxic BRESCO incinerator and will host sustainable, living wage jobs composting and recycling.
7. **The Delmarva Peninsula cannot afford a false solution like methane extraction**. Our eastern shore waters are already over polluted with nutrients from industrialized agriculture that is bad for family farmers and bad for the land and water. The real solution for our eastern shore is sustainable, family and community centered agriculture. Like our atmosphere, our eastern shore waters need

centuries to heal as we compost and more responsibly land spread the nutrients from chicken waste.

8. **Trees are our lungs**. A recent Harvard School of Public Health Study found that biomass and wood have the fastest-growing share of early deaths in the major energy-consuming sectors; burning wood for electricity produces as much or more pollution than fossil fuels, including coal. Biomass facilities emit high levels of particulate matter (PM), nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO2), lead, mercury, and other hazardous air pollutants. Although trees regenerate, newly planted trees have far less benefit to the climate and local air quality than a mature tree or a fully-functioning forest ecosystem. Burning trees releases CO2 into the air immediately, and the carbon isn't recaptured unless and until newly planted replacement trees grow to maturity over many decades.

There are no fact-based, science-based, or economically-based arguments that can be made for subsidizing dirty, harmful, and expensive waste solutions (schemes) as 'renewable' energy.

FAVORABLE Reclaim Renewable Energy Wilson 02.27.20

Uploaded by: Anne Wilson

Position: FAV

Testimony Supporting SB0590

Renewable Energy Portfolio Standard - Eligible Sources - Alterations

(Reclaim Renewable Energy Act of 2023)

Senate Committee on Education, Energy and the Environment

Feb 27, 2023 for hearing date Feb 28, 2023

Position: SUPPORT

Dear Chairman Feldman and Members of the Committee,

I am writing to urge this committee to give SB0590 a FAVORABLE report.

The climate crisis is already killing people in Baltimore and around the world, reducing global food production, and wreaking havoc by exacerbating destructive wildfires, extreme heat and flooding. When Maryland's Renewable Portfolio Standard was created in 2004, the authors stated that the new law was written to address the threats of climate change by, among other goals, "reducing greenhouse gas emissions … from the state's electric grid."

But over the years it has moved further and further from that goal, and is now one of the dirtiest RPSs in the nation. We're funding polluters instead of providing robust support for our state's transition to a renewable energy economy and significant reductions in greenhouse gas emissions.

I've met with lawmakers who ask things like "what will we do with the trash?" and "why not get power from chicken poop?" If the Maryland General Assembly wishes to subsidize those activities, it is certainly free to do so, but that is unlikely to happen because none of these secondary services are preferred methods of managing waste, from either a financial standpoint, nor from the standpoint of public health and welfare. They are in fact among the least efficient, most expensive and most problematic approaches. This is why these industries have hitched their wagons to renewable energy subsidies – by convincing policymakers over time that these losing industries are a "win-win" for the state and its municipalities, rather than the lose-lose they actually represent: failing to promote *real* renewable energy, and failing to provide optimal 21st-century waste management solutions.

Please do not fall for claims that methane from factory farm waste is "renewable" energy. Methane is methane, a powerful greenhouse gas that inevitably leaks when placed in pipelines. It has no place in our renewable energy future. Incentivizing large-scale methane production of any kind also entrenches our state's gas infrastructure, a step in the wrong direction that increases the financial risks of stranded assets, *for which the state will no doubt be left holding the bag.*

The mistaken notion that “wood releases the carbon anyway, so it doesn’t matter if it decomposes or burns,” which I’ve also heard from legislators and fellow Marylanders, reflects a profound misunderstanding of the carbon cycle. While it may be necessary at times to burn woody biomass (or use other technologies to reduce its volume and produce thermal energy), it is a grave mistake to provide financial incentives for doing so, sending massive amounts of greenhouse gas emissions into the atmosphere and claiming dollars that should be going to wind and solar.

Burning trash, chicken litter, and wood waste, and manufacturing methane all pollute the environment, harm nearby communities’ health, and contribute to the climate crisis: a bad investment of public dollars that every Maryland utility ratepayer contributes to, and an egregious waste of public money.

The renewable energy portfolio should support the conversion of Maryland’s energy sector to technologies that do not produce greenhouse gases and do not create or exacerbate human illness. We could have a clean, green renewable energy future ahead of us if we make the right changes that are available to us.

For human health, for economic and racial justice in our communities, for the health of the economy, and to reduce the harms of the climate crisis, I urge you to grant a FAVORABLE report for SB590. Thank you for your time and consideration.

Anne Wilson
District 43A
221 Stony Run Lane, Apt H-2
Baltimore, Maryland 21210
410-294-8074

Letter of Support_ SB0590 RECS - Google Docs.pdf
Uploaded by: Ashia Caraway
Position: FAV

CITY OF BALTIMORE

Room 527, City Hall
100 N. Holliday Street, Baltimore, Maryland 21202
Telephone: (410) 396-4822
Email: Phylicia.Porter@baltimorecity.gov

Councilwoman Phylicia R. L. Porter
District 10

MEMBER:
Public Safety and Government Operations
Education, Workforce, and Youth
Health, Environment, and Technology

February 24, 2023

Councilwoman Phylicia Porter's Testimony Supporting SB590
Senate Education, Energy, and the Environment Committee
February 28, 2023

Senator Brian J. Feldman
Chair, Education, Energy, and the Environment Committee
2 West
Miller Senate Office Building
Annapolis, Maryland 21401

RE: Senate Bill 0590 Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)

Dear Chair Feldman and Members of the Committee,

As Councilwoman for Baltimore's Tenth District, I am writing to express my support for Senate Bill 0590 Renewable Energy Portfolio Standard and the necessary push to alter language in the renewable energy portfolio standard specifically regarding "qualifying biomass", "thermal biomass system", and "Tier 1 renewable source."

For generations, families of South Baltimore have gathered, built community, and labored. However, they have done so in the presence of over sixty facilities handling hazardous or toxic materials and producers of pollution, like the BRESCO waste incinerator plant. The harsh environmental conditions perpetuated by cumulative impacts have resulted in neighborhoods in my district such as Brooklyn, Curtis Bay, and Hawkins Point being the 3nd least healthy neighborhood cluster in Baltimore City. Despite being disproportionately affected by countless social and environmental injustices, the environmental justice community has sought strategic and sustainable solutions and most importantly deserve stronger environmental and land use policies.

I support Senate Bill 0590 and the overall purpose of the Reclaim Renewable Energy Act of 2023 because it provides us with the unique opportunity to take the subsidies from the BRESCO incinerator and use those subsidies for a just transition to Zero Waste such as composting.

Sincerely,

Phylicia R.L. Porter MPH, MSL
Councilwoman, Baltimore City Council, District 10

Testimony - SB 590 - Reclaim Renewable Energy - Fa

Uploaded by: Ashley Egan

Position: FAV

Unitarian Universalist Legislative Ministry of Maryland

Testimony in Support
SB 590 - Renewable Energy Portfolio Standard - Eligible Sources - Alterations
(Reclaim Renewable Energy Act of 2023)

To: Chair Feldman and the Members of the Education, Energy and the Environment Committee
From: Phil Webster, PhD
Lead Advocate on Climate Change
Unitarian Universalist Legislative Ministry of Maryland.
Date: February 28, 2023

The Unitarian Universalist Legislative Ministry of Maryland (UULM-MD) strongly supports **SB 590 - Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)** and urges a FAVORABLE report by the committee.

The UULM-MD is a statewide faith-based advocacy organization, with over 1,200 members, based on the Principles of Unitarian Universalism. Unitarian Universalists believe in *justice and equity in human relations* and support passing this legislation to ensure that Maryland ratepayers are getting what they're paying for: renewable energy dollars going to support actual renewable energy.

This bill would eliminate three problematic polluters from Maryland's Renewable Portfolio Standard (RPS):

1. Trash Incineration,
2. Factory Farm Methane, and
3. Woody Biomass.

These items should not be in the RPS because they burn the fuel to generate electricity; which releases carbon pollution into the atmosphere in addition to various toxic substances.

Burning woody biomass facilities harm the health of nearby communities. A recent Harvard School of Public Health Study found that biomass and wood contribute to the fastest-growing share of early deaths in the major energy-consuming sectors; burning wood for electricity produces as much–or more–pollution than fossil fuels, including coal.

However, you can't say the placement of these plants is just or equitable; especially when you look at the inherent biases and systemic racism behind where they are located. Most of these plants are placed in poorer communities and/or communities of color; which has resulted in these communities having significantly worse health outcomes than more affluent communities.

(1) Trash incineration

Trash incineration is a simple "solution" to a very complicated problem. Burning trash maximizes pollution, especially when it is used in lieu of implementing a comprehensive solution, which would include composting, recycling, and reusing products. Incinerating trash disincentivizes the better alternatives for handling our trash. So it defies logic for incineration to be classified as a source of renewable energy, it's not!

(2) Factory Farm Methane Gas

Factory farm methane gas, otherwise known as anaerobic digestion or "biogas," produces methane. Whether drilled out of the ground or manufactured from waste, methane is methane and it leaks. In its "purest" form, methane is an incredibly potent greenhouse gas. When it is burned for energy, methane produces CO_2, which may be less potent, but is still a greenhouse gas. Subsidizing factory farm waste management with "renewable" energy subsidies based on incineration, skews the markets in favor of more pollution, instead of solutions like composting, which could create another product for the farmers to sell, instead of creating a byproduct that we need to clean up.

(3) Woody Biomass

The burning of woody biomass for electricity generation releases greenhouse gasses comparable to coal. Burning woody biomass is thought to be renewable because trees sequester carbon during their growth that is equal to the amount of carbon released in combustion. However, this argument does not include the carbon that the tree would have sequestered were it still living and growing. New research in Germany and Finland support this conclusion. Considering this, burning woody biomass cannot be considered a renewable source of energy.

Since 2008, Maryland ratepayers have spent over $200 million on Renewable Energy Credits (RECs) from dirty sources misclassified as "renewable." That money should have been supporting the development of new wind and solar power instead of being thrown away to profit polluters.

Two years ago, the legislature wisely eliminated black liquor, a polluting paper mill byproduct, from the RPS. That action freed up money that was being wasted to support real renewable energy instead. For all the good reasons the legislature eliminated black liquor from the RPS, we urge you to pass the Reclaim Renewable Energy Act (HB 718/SB 590) in 2023.

All Marylanders need bold and urgent action! Please keep us on the right and moral path towards a livable climate and a sustainable world. We owe it to our children.

We support this bill and urge a FAVORABLE report in committee.

Phil Webster, PhD

Lead Advocate, Climate Change UULM-MD

Testimony on Reclaim Renewable Energy Act.pdf
Uploaded by: Betsy Nicholas
Position: FAV

POTOMAC RIVERKEEPER NETWORK

3070 M Street, NW
Washington, DC 20007
202.888.2037 (main)
www.prknetwork.org

Dear Chair and Members of the Committee,

Potomac Riverkeeper Network is a member supported organization with the mission of protecting the public's right to clean water in the Potomac watershed. The Potomac River is the Nation's River and provides drinking water for more than 6 million residents in the watershed.

We ask you to support the Reclaim Renewable Energy Act (HB718/SB590) to eliminate three problematic polluters from Maryland's Renewable Portfolio Standard (RPS): trash incineration, factory farm methane, and woody biomass. This legislation would make sure that Maryland ratepayers are getting what they're paying for: renewable energy dollars going to support actual renewable energy.

Since 2008, Maryland ratepayers have spent over $200 million on Renewable Energy Credits (RECs) from dirty sources misclassified as "renewable." That money should have been supporting the development of new wind and solar power instead of being thrown away to profit polluters.

Trash incineration was added to Tier 1 of the RPS in 2011. Before then, it had been in Tier 2, designed to sunset by 2019. In the original design of the RPS, trash incineration would no longer be eligible for subsidies by now. Incinerating trash creates greenhouse gas emissions as well as harmful local air pollution, and disincentivizes the better alternatives for handling our trash: reducing, reusing, recycling, and composting. Our communities are working to move forward with those better alternatives, and it's time for the state to stop holding us back. Now, while we're building the better infrastructure we need, is the time to start subsidizing the things we want and stop subsidizing the things we don't.

Factory farm methane gas, otherwise known as anaerobic digestion or "biogas," produces methane. No matter the source, methane is methane. Whether drilled out of the ground or manufactured from waste, methane produces CO2 when burned for energy. Methane also leaks, and when it does, it is an even more potent greenhouse gas than CO2. As with trash incineration, subsidizing factory farm waste management with "renewable" energy subsidies skews the markets in favor of more pollution. Digesters would not solve nutrient runoff problems from farm waste; they would exacerbate it. There are no such facilities in Maryland now, but developers are proposing to build them across the Delmarva region. Now is the time to take this problem out of the RPS.

POTOMAC RIVERKEEPER NETWORK

3070 M Street, NW
Washington, DC 20007
202.888.2037 (main)
www.prknetwork.org

Maryland's **woody biomass** subsidies mostly go to out-of-state sawmills and paper mills burning their own products to power their own operations. These facilities harm the health of nearby communities, and harm the climate. A recent Harvard School of Public Health Study found that biomass and wood have the fastest-growing share of early deaths in the major energy-consuming sectors; burning wood for electricity produces as much or more pollution than fossil fuels, including coal. Let's stop wasting our "renewable energy" money on these out-of-state facilities.

Two years ago, the legislature wisely eliminated black liquor, a polluting paper mill byproduct, from the RPS. That action freed up the money that was being wasted to support real renewable energy instead. For all of the good reasons the legislature eliminated black liquor from the RPS, we urge you to pass the Reclaim Renewable Energy Act (HB718/SB590) in 2023.

Thank you,

Betsy Nicholas
Vice President of Programs
Potomac Riverkeeper Network

Ricarra Jones Right to Repro Freedom Testimony FAV

Uploaded by: Brige Dumais

Position: FAV

Testimony on HB705/SB798
Declaration of Rights – Right to Reproductive Freedom
Position: Favorable

To Chair Pena- Melnyk and Members of the Health & Government Operations Committee;
To Chair Griffith and Members of the Senate Finance Committee:

My name is Ricarra Jones and I am the Political Director of 1199SEIU United Healthcare Workers East. We are the largest healthcare workers union in the country, representing over 10,000 members in Maryland and Washington DC, including members who provide reproductive healthcare. We urge a **favorable** report on this bill to enshrine the Right to Reproductive freedom in our State.

Our right to reproductive freedom is under attack by the Supreme Court and nationwide, so the State of Maryland must act immediately to protect this right in our Constitution. Whether it is contraception, abortion, or family planning – these are personal healthcare decisions to be made between a patient and their healthcare provider, not the government or an employer.

As a union of healthcare workers, the vast majority of whom are women, we believe everyone should have the right to reproductive freedom. Furthermore, our union recognizes that there are transgender men and nonbinary people who can get pregnant, and they also deserve the right to reproductive freedom. We appreciate that the language of this bill is inclusive of all genders.

This bill to amend the State Constitution will ensure a healthier and happier Maryland for all. Please vote **YES** on this bill.

In Unity,

Ricarra Jones
1199SEIU MD/DC Political Director
ricarra.jones@1199.org

MLU TESTIMONY SB590 - Reclaim Renewable Energy .pd
Uploaded by: Carlos Orbe, Jr.
Position: FAV

Testimony Supporting SB590/ HB718
Senate Education, Energy, and the Environment Committee:
February 27, 2023

Position: **SUPPORT**

Reclaim Renewable Energy Act of 2023

My name is Carlos Orbe. I am the Public Affairs Specialist for Maryland Latinos Unidos (MLU), an association housed at MD Nonprofits of over 300 Latino community leaders, business owners, and Latino-led nonprofits. MLU's mission is to unify efforts across the state to advocate and organize for the benefit of Maryland's Latino community. Our vision is that the Latino community in Maryland thrives, achieves excellence, innovates, and continually makes progress economically, socially, and environmentally. We utilize data-driven and evidence-based approaches to build coalitions to advocate and create a space for every Latino to have a voice. In doing so, we look to create or advocate for a network of resources to support Latino-initiatives that positively impact the community overall. For these reasons, I am writing to express my support for the Renewable Energy Portfolio Standard – Eligible Sources (Reclaim Renewable Energy Act), SB590/ HB718, sponsored by Senator Lewis Young.

Established in 2020, MLU has become one of the most involved non-profit organizations within Maryland's Latino community. From its inception and as a civil right, MLU's members have embraced environmental health measures, including equity across the state as a principle for our minority communities at-risk. This bill will make sure that our subsidies for renewable energy through the Renewable Portfolio Standard are going toward actual renewable energy, not being wasted on things that emit greenhouse gasses. We are in a climate crisis, and we cannot afford to be spending our renewable energy money on facilities that pollute. Now is the time to double down on Maryland's commitment to truly renewable energy and subsidize only facilities that are emissions-free.

This bill will eliminate three types of energy from Maryland's RPS: trash incineration, woody biomass, and factory farm methane gas. All three of these pollute the environment, harm nearby communities' health, and contribute to climate change. Subsidizing them takes money away from the real renewable energy that we need, and it also tilts waste markets toward the worst methods of managing our waste. Subsidies exist to support the things we want, so why are we subsidizing things we don't want in our communities? Let's put those subsidies toward wind and solar power and let the waste sector work on managing waste.

For all of these reasons and many more, please support SB590/ HB718 and stop sending Maryland's renewable energy money to facilities that emit such enormous amounts of greenhouse gasses. Doing so would have a such a long-lasting impact on minorities and at-risk communities.

Respectfully,
Carlos Orbe, Jr.
Public Affairs Specialist
Maryland Latinos Unidos

Carlos Orbe Jr.

SB0590 Reclaim Renewable Energy Act FAV Climate P

Uploaded by: Cecilia Plante

Position: FAV

marylandclimatepartners

Testimony for SB0590
Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)

Bill Sponsor: Senator Lewis Young
Committee: Education, Energy, and the Environment
Position: FAVORABLE

The undersigned organizations express their strong support for **SB0590 Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)** and thank the sponsor, Senator Lewis Young, for introducing such an important piece of legislation.

The General Assembly has worked hard to position our state to achieve a clean energy future. However, one of the most important ways to achieve that future is to end subsidizes to businesses that produce dirty energy. Subsidizing those businesses is not in our best interest, and it will make it much harder to achieve the greenhouse gas reductions that we seek.

This bill will remove all of the dirty energy sources from our Renewable Energy Portfolio. We are in a climate crisis, and we cannot afford to be spending any money on facilities that pollute. Not only is it wasteful to subsidize businesses that continue to pollute, it makes it harder to meet the greenhouse gas reductions that are required to reduce the harm caused by climate change.

This bill will eliminate three types of energy from Maryland's RPS: trash incineration, woody biomass, and factory farm methane gas. All three of these pollute the environment, harm nearby communities' health, and contribute to climate change. Subsidizing them takes money away from the real renewable energy that we need, and it also tilts waste markets toward the worst methods of managing our waste. We should be subsidizing businesses that do not pollute the environment, like wind and solar power, and let the waste sector work on managing waste.

We support this bill and we urge a **FAVORABLE** vote from the committee.

Endorsing Organizations

350 Baltimore
350 Montgomery County
Adat Shalom Climate Action
Assateague Coastal Trust
Audubon Naturalist Society
Casa de Maryland
Cedar Lane Unitarian Universalist Church
CHEER
Chesapeake Bay Foundation
Chesapeake Climate Action Network Action Fund
Chesapeake Physicians for Social Responsibility
Chispa MD
Clean Air Prince Georges
Clean Air Prince Georges
Clean Water Action
Climate Law & Policy Project
Climate Parents of Prince Georges
Climate Reality Montgomery County
Climate Solutions
Climate Stewards of Greater Annapolis
Climate XChange - Maryland
Coalition For Smarter Growth
Columbia Association Climate Change
Concerned Citizens Against Industrial CAFOs
Do The Most Good Montgomery County
Echotopia
Elders Climate Action
Environmental Justice Ministry
Frack Free Frostburg
Glen Echo Heights Mobilization
Greenbelt Climate Action Network
HoCo Climate Action
Howard County Indivisible
Howard County Sierra Club
Interfaith Power and Light, DC, MD, NoVa
Labor Network for Sustainability
Laurel Resist
Maryland Environmental Health Network
Maryland League of Conservation Voters
Maryland Legislative Coalition
Maryland NAACP State Conference, Environmental Justice Committee
Maryland Poor People's Campaign
MCPS Clean Energy Campaign
MD Campaign for Environmental Human Rights
Mid-Atlantic Ministry of Maryland
MoCo DCC
Montgomery Countryside Alliance
Montgomery County Faith Alliance
Mountain Maryland Movement
National Parks Conservation Association
Nuclear Information & Resource Service
Potomac Conservancy Sustainability Advisory Committee
Sierra Club, Maryland Chapter
Strong Future Maryland
Sunrise Baltimore
Takoma Park Mobilization Environment Committee
Talbot Rising
The Climate Mobilization Montgomery County
The Nature Conservancy
Unitarian Universalist Legislative Ministry
Wicomico NAACP
WISE

SB0590 Reclaim Renewable Energy Act FAV.pdf
Uploaded by: Cecilia Plante
Position: FAV

MARYLAND LEGISLATIVE COALITION

TESTIMONY FOR SB0590

Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)

Bill Sponsor: Senator Lewis Young
Committee: Education, Energy, and the Environment
Organization Submitting: Maryland Legislative Coalition
Person Submitting: Cecilia Plante, co-chair
Position: FAVORABLE

I am submitting this testimony in favor of SB0590 on behalf of the Maryland Legislative Coalition. The Maryland Legislative Coalition is an association of activists - individuals and grassroots groups in every district in the state. We are unpaid citizen lobbyists and our Coalition supports well over 30,000 members.

This bill will ensure that Maryland is not subsidizing businesses that produce dirty but renewable energy. We are in a climate crisis, and we cannot afford to be spending any money on facilities that pollute. Not only is it wasteful to subsidize businesses that continue to pollute, it makes it harder to meet the greenhouse gas reductions that are required to reduce the harm caused by climate change.

This bill will eliminate three types of energy from Maryland's RPS: trash incineration, woody biomass, and factory farm methane gas. All three of these pollute the environment, harm nearby communities' health, and contribute to climate change. Subsidizing them takes money away from the real renewable energy that we need, and it also tilts waste markets toward the worst methods of managing our waste. We should be subsidizing businesses that do not pollute the environment, like wind and solar power, and let the waste sector work on managing waste.

Our members do not like the idea that we are subsidizing businesses that pollute. We support this bill and recommend a **FAVORABLE** report in committee.

SB590 Renewable Energy Portfolio Standard - Favora

Uploaded by: Dave Arndt

Position: FAV

Testimony Supporting SB590
Senate Education, Energy, and the Environment Committee
February 28, 2023
Position: SUPPORT

Submitted by: Dave Arndt

Dear Chair and Members of the Committee,

As a resident of Baltimore, MD, I am writing to express my strong support of SB590, which will make sure that our subsidies for renewable energy through the Renewable Portfolio Standard are going toward actual renewable energy. We are in a climate crisis, and we cannot afford to be spending our renewable energy money on facilities that emit greenhouse gasses - now is the time to double down Maryland's commitment to truly renewable energy and subsidize only facilities that are emissions-free.

Burning trash, chicken litter, and wood waste and manufacturing methane all pollute the environment, harm nearby communities' health, and contribute to climate change: a bad investment of public dollars that every Maryland utility ratepayer contributes to. Every Renewable Energy Credit that goes toward a facility that emits greenhouse gasses is a Renewable Energy Credit taken away from a facility that does not - an egregious waste of public money.

Because of the inclusion of these polluters in the Renewable Portfolio Standard, Maryland ratepayers paid over $30 million to buy Renewable Energy Credits from facilities that emit greenhouse gasses in 2020, and over $246 million since 2008. The Public Employees for Environmental Responsibility estimates that if nothing changes, those costs will mount to half a billion dollars subsidizing polluters by 2030. Please support SB590 so that those dollars can go toward supporting wind, solar, hydro, and geothermal power - not greenhouse gas emissions.

The Baltimore region ranks among the worst in the U.S. for air pollution. Baltimore has two active trash incinerators and decades of pollution from both active and decommissioned industrial factories. A study by the Chesapeake Bay Foundation in 2017 found air quality in the region was ranked moderate or worse one of every three days, according to the EPA's Air Quality Index. The same study notes poor air quality triggers asthma and can cause other health issues. Little wonder then that children in Baltimore City have asthma at twice the rate of the rest of the country, and the hospitalization rate for pediatric asthma is one of the highest in the nation, as a 2017 report by the Environmental Integrity Project showed.

The private-equity-owned Bresco/Wheelabrator incinerator—recently rebranded, or greenwashed, as WIN Waste Innovations—is alongside six communities of color and low-income communities, which fits a pattern of environmental and social injustice around the world. The Bresco incinerator has been burning around 700,000 tons of waste every year for 35 years and is the city's single worst air polluter. The Chesapeake Bay Foundation study found that the illness and ailments caused by air polluted by the incineration alone cost $55 million a year in health damages to residents. This is just one of the heavy costs dumped on Black and poor residents by a private corporation. Because Maryland classifies incineration as recycling, Bresco receives state subsidies for renewable energy–nearly $10 million over the past six years. In addition, Baltimore pays an extra $52 per ton to burn trash.

Community Impact

When I do Composting Workshops at schools, I ask if they are affected by asthma and cancer. The response is that 98% of the students have asthma, and several of their family members have cancer. At this point, to illustrate the effects to me, the teacher opens a desk drawer, and pulls out a storage bag full of inhalers. Most of these schools can't field a youth athletic team due to the students having compromised respiratory issues.

Subsidizing dirty energy is a bad deal for Maryland.

- In 2020, about 25% of Maryland's Renewable Energy Credits came from polluting energy sources that are still a part of the RPS, such as municipal solid waste burned to produce electricity and woody biomass or debris burned in power plants and paper mills. An additional 11% of Renewable Energy Credits went to black liquor, which the General Assembly deleted from the RPS in 2021 - now it's time to finish the job.
- Maryland RPS program spends millions of dollars on a Virginia biomass facility that is too dirty to qualify for Virginia's own recently-enacted RPS.
- Maryland allows credits for burning "biomass gas" from DC's Blue Plains wastewater treatment plant, which makes fertilizer from sewage sludge with extremely high levels of toxic per- and polyfluoroalkyl Substances (PFAS) that is sold to the public for a profit.
- Most RPS facilities are located outside of Maryland provide no energy to Maryland energy suppliers. Trash incinerators in Maryland provide less than 1% of all of Maryland's electricity. There loss would not be noticed in Maryland.
- Emissions from dirty energy sources in the RPS overwhelm emission reductions from truly renewable energy. In its 2019 report reviewing the RPS in response to 2017's HB1414, the Maryland Department of Natural Resources found that our state's RPS "has played a small role" in emissions reductions, and had nothing to do with most of the reductions in CO2 emissions we have seen in the past two decades. As of 2017, grid-wide CO2 emissions per megawatt hour , "PJM-wide CO2 emissions per MWh in 2017, the latest year available, were approximately 0.8% lower than they would have been absent the Maryland RPS, assuming all retired RECs supported resources that would not have operated otherwise." Under the status quo, Maryland's RPS is not doing enough to drive down greenhouse gas emissions.
- In its 2019 report reviewing the RPS in response to 2017's HB1414, the Maryland Department of Natural Resources found that the pollution from combustion-based energy sources included in the RPS is so great that Maryland RPS energy sources, on average, pollute as much or more SO2 and NOx than the grid as a whole - pollutants that significantly contribute to asthma and other health hazards.

Subsidizing trash incineration and landfill gas tilts the playing field against healthier, cheaper waste management.

- When the RPS was created in 2004, trash incineration was in "Tier 2" of the RPS and received lower subsidies than the actually renewable energy in Tier 1, and those smaller subsidies were

to be phased out by 2019. It wasn't until 2011, in response to intense industry pressure, that incineration was made permanently a part of the same subsidized category as wind and solar.

- New trash incinerators were proposed for Baltimore City and Frederick and Carroll Counties, but residents campaigned and prevented them from being built because of the enormous pollution burden and economic costs they would have brought. In Baltimore City and Montgomery County, home of Maryland's remaining incinerators, residents are actively campaigning to close them as well.
- To produce the same amount of energy, Maryland's two subsidy-receiving incinerators emit higher levels of mercury, lead, nitrogen oxides (NOx), carbon monoxide (CO), and carbon dioxide (CO2) than Maryland's coal plants. In 2015, the BRESCO incinerator in Baltimore emitted about twice as much greenhouses gasses per amount of energy produced, on average, as each of the coal plants located in Maryland.
- In 2020, the most recent data available, 61.5% of Maryland's RPS subsidies for trash incineration went to an incinerator outside of Maryland in Lorton, VA.
- Artificial subsidies make incinerators seem artificially cheaper compared to methods of managing our waste that produce neither pollution nor energy: like composting, repurposing, and source reduction. Although trash incineration and producing methane from waste receive RPS subsidies for producing energy despite their pollution impacts, composting is better for the environment than either. According to the EPA: "composting lowers greenhouse gasses by improving carbon sequestration in the soil and by preventing methane emissions through aerobic decomposition, as methane-producing microbes are not active in the presence of oxygen." 50% of the average municipal waste stream can be composted.

Subsidizing methane production locks Maryland into leaking greenhouse gas emissions and pollution from poultry factory farms

- In the anaerobic digestion of factory farm waste, animal waste and other materials are fed into a digester where it is broken down by specialized methane-producing microorganisms that can only thrive in the absence of oxygen. Chicken waste is a dry solid, and doesn't normally emit significant amounts of methane outside of the conditions of a digester.
- No matter the source, burning methane produces CO2. Furthermore, it is an even more potent greenhouse gas in and of itself when it leaks into the atmosphere - a huge and undercounted problem. Studies show that in 2015, leaks along the natural gas supply chain were approximately 60% higher than the U.S. Environmental Protection Agency inventory estimate. [Earthjustice paper, page 5, research paper]
- Since the construction of biogas facilities is extremely costly, they are generally not profitable without subsidies and incentives. (FWW Fact Sheet) The inclusion of biogas in our RPS provides an unwanted financial incentive to add new greenhouse gas emitting technology to our grid under the guise of renewable energy - on the public's dime.

- Sending animal waste to a digester creates methane but does nothing to mitigate the significant air quality issues associated with factory farms. Additionally, the anaerobic digestion process leaves behind a toxic digestate that must still be disposed of. Studies have shown that the effluents include highly concentrated amounts of nitrogen(ammonia) and phosphorus that when spread on fields causes increase stream and Chesapeake Bay pollution
- The production of methane from organic matter through anaerobic digestion has been used as an excuse for expanding and entrenching dangerous LNG infrastructure.
- The poultry industry is good for making profits for Perdue/Tyson. By the way Tyson reported fiscal 2021 profit of $3 billion, a 48% gain from the previous year. Perdure reported sales revenue of $8 billion. What we need is something that could: strengthening state enforcement and oversight of an industry that produces over 600 million pounds of manure ever year in Maryland while earning billions of dollars in revenues.

Burning woody biomass turns carbon sinks into climate problems

- A recent Harvard School of Public Health Study found that biomass and wood have the fastest-growing share of early deaths in the major energy-consuming sectors; burning wood for electricity produces as much or more pollution than fossil fuels, including coal. Biomass facilities emit high levels of particulate matter (PM), nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO2), lead, mercury, and other hazardous air pollutants.
- Although trees regenerate, newly planted trees have far less benefit to the climate and local air quality than a mature tree or a fully-functioning forest ecosystem. Burning trees releases CO2 into the air immediately, and the carbon isn't recaptured unless and until newly planted replacement trees grow to maturity over many decades.
- In 2020, the most recent data available, 97.3% of Maryland's RPS subsidies for burning woody biomass went to facilities outside of Maryland.

For all of these reasons and many more, please support SB590 and end "renewable energy" subsidies for greenhouse gas emitting energy sources in Maryland. Thank you.

Dave Arndt

Retired Chemical Engineer and Climate, Environmental and Social Justice Advocate

Testimony on SB590 Reclaim Renewable Energy Act.pd
Uploaded by: Debbie Cohn
Position: FAV

Committee:	**Education, Energy and the Environment**
Testimony on:	**SB590 –Renewable Energy Portfolio Standard – Eligible Sources – Alterations (Reclaim Renewable Energy Act of 2023)**
Organization:	**Individual**
Submitting:	**Deborah Cohn, Bethesda, MD**
Position:	**Favorable**
Hearing Date:	**February 28, 2023**

Dear Chairman and Committee Members:

Thank you for accepting my testimony today in support of SB590/HB718, the Reclaim Renewable Energy Act, which would eliminate three greenhouse gas emitters from Tier 1 under Maryland's Renewable Portfolio Standard (RPS): (i) trash incineration (often referred to as waste-to-energy" or "refuse derived fuel"), (ii) gas produced from the anaerobic digestion of animal or poultry waste (often referred to as "biogas" or "factory farm gas"), and (iii) several forms of wood-derived waste material (often referred to as "woody biomass.")

The Renewable Portfolio Standard (RPS) was enacted in 2004 to facilitate a transition to renewable sources of energy. Energy sources included in Tier 1 of the RPS qualify for ratepayer subsidized financial incentives.

Tier 1 currently includes, along with wind, solar and geothermal, several "renewable energy" sources that produce or emit greenhouse gases and harm public health through local air and water pollution. SB590 would eliminate three greenhouse gas emitters from Tier 1: (i) trash incineration (often referred to as waste-to-energy" or "refuse derived fuel"), (ii) gas produced from the anaerobic digestion of animal or poultry waste (often referred to as "biogas" or "factory farm gas"), and (iii) several forms of wood-derived waste material (often referred to as "woody biomass").

These three dirty energy sources produce electricity or methane through either the combustion or anaerobic digestion of products embodying fossil fuels (such as plastic and certain organic wastes) that are continuously produced. But continuous production of the fuel source does not, by itself, justify ratepayer subsidy of the electricity or methane produced. There simply is no justification for ratepayers to subsidize through charges on their utility bills processes that generate methane or electricity while emitting greenhouse gases and several other highly toxic pollutants.

Since 2008, Maryland ratepayers have spent over $200 million on Renewable Energy Credits (RECs) from dirty sources misclassified as "renewable." Money spent propping up these dirty energy processes is not available to subsidize wind, solar, geothermal or similar "green" renewable energy. SB590 would not close down these dirty energy processes or bar new dirty energy infrastructure from being constructed if they are financially viable without Maryland ratepayer support under the RPS. SB590 would just remove this misplaced ratepayer subsidy.

Moreover, all three of these dirty Tier 1 energy sources pose significant environmental justice concerns. Ratepayer subsidization of these three dirty energy sources places the environmental and health burden of meeting Maryland's sustainability standards on communities already overburdened by polluting industries. The threat of new facilities for producing energy from factory farm waste and forestry products could expand these injustices to lower-income communities on the Eastern Shore and Western Maryland.

Trash incineration, prior to 2011, had been in Tier 2 of the RPS, designed to sunset by 2019. In 2011, it was elevated to Tier 1 to ensure continued ratepayer subsidy of existing and proposed incinerators. While concerted local opposition blocked several proposed incinerators, significant ratepayer funds are still propping up incinerators in Baltimore, Montgomery County and Lorton, Virginia. Residents in Baltimore and Montgomery County are trying to close their incinerators and successfully advocating for aggressive waste reduction strategies several of which are being implemented. Trash incineration pollutes more per unit of energy than coal and contributes significantly to air pollution that causes cancer, cardiovascular and respiratory disease.

Anaerobic digestion of animal and poultry waste produces "biogas" (primarily methane). Burning methane produces CO_2, and other pollutants, and methane itself is an even more potent greenhouse gas when it leaks. A 2-15% leak rate from the major biogas projects on the Eastern Shore could release up to 5,187 metric tons of methane per year – comparable to the greenhouse gas emissions from almost 100,000 gas-powered cars.

No such facilities currently exist in Maryland, but industry is proposing to build large facilities on the Eastern Shore. These proposals are being met with stiff local opposition. Proponents claim anaerobic digestion gets rid of animal waste from concentrated animal farm operations which, if applied to fields, would runoff into waterways. But anaerobic digestion actually worsens the problem. It leaves behind a nutrient-rich digestate that must still be disposed of, but the nitrogen, phosphorous and other nutrients have become more water soluble, giving them a greater potential, when applied to fields as a fertilizer, to move into local streams and ultimately into the Chesapeake Bay. These dissolved nutrients would then damage the health of the Bay, undermining the local economy dependent on fisheries and tourism.

Woody biomass: Facilities that burn precommercial soft wood thinning, slash, brush, yard waste and certain mill residue (sometimes referred to as "woody biomass") currently qualify as biomass under the RPS. Maryland's woody biomass subsidies mostly go to out-of-state sawmills and paper mills burning their own products to power their own operations. A recent Harvard School of Public Health Study found that biomass and wood have the fastest-growing share of early deaths in the major energy-consuming sectors. Biomass facilities emit high levels of particulate matter (PM), nitrogen oxides NOx, carbon monoxide (CO), sulfur dioxide (SO_2), lead, mercury and other hazardous chemicals. And all the sequestered carbon in the tree waste gets released, not over time but immediately upon combustion, turning a carbon sink into a massive carbon emitter. Including woody biomass in Tier 1 energy squanders our ratepayer subsidies, spending them out-of-state on significant fossil fuel emitters.

For these reasons, I urge a **FAVORABLE** report for SB590, the Reclaim Renewable Energy Act, in committee.

PM_ Testimony template Donna.pdf
Uploaded by: Donna Kirkpatrick
Position: FAV

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Testimony on Maryland Senate Bill 590
Reclaim Renewable Energy Act

TO: Chair Feldman, Vice Chair Kagan, and members of the committee
FROM: Donna Kirkpatrick , Member of Progressive Maryland
DATE: February 28, 2023
POSITION: Favorable

Thank you for the opportunity to offer testimony in support of the Reclaim Renewable Energy Act. Progressive Maryland is a grassroots nonprofit organization with regional chapters from Frederick to the Lower Shore and more than 100,000 members and supporters who live in nearly every legislative district in the state. In addition, there are dozens of affiliated community, faith, and labor organizations across the state that stand behind our work. Our mission is to improve the lives of working families in Maryland. Please note our **strong support for SB590**.

I became involved with this plight after hearing of the blatant ignorance and greed of one company, Wheelabrator, and the laws that allow them to kill Black lives of those that reside in particular communities of South Baltimore, MD. Cherry Hill, Brooklyn, and Curtis Bay to name a few. All for profit.

An incinerator that has been burning trash since 1985, that produces toxins. These toxins are causing premature deaths by cancer, lung diseases, birth defects, and more. With the astounding decrease of life expectancy of less than 70 years!

To continue to expound on the stats and devastating results of this incinerator, is only a refresher course for the powers that be that continue to allow it to thrive.

The Baltimore City Council and the lawmakers of this State, have agreed that this burning of trash is environmentally friendly! To equate the word “green” energy with the production of toxins that pollute the air, water, and land of residential areas, is reprehensible.

Profit over people should never be a consideration. Yet it is a daily occurrence of the Black and Brown citizens of the aforementioned areas of Baltimore. Baltimore is well known for crimes committed by people, one on another. But, we are also on the list of less than a dozen states that allow this type of deadly incineration. However, it's not a hot topic. Why is that?

To afford millions of taxpayers dollars for the continuation and knowledge of such devastation, should be a crime. That crime is Murder.

When was the trial? Who were the victims? Who were the judges? Was the verdict to continue the voluntary demise of thousands of innocent people, made by a jury of their peers?

I think not! I implore you, no I demand on behalf of the citizens of South Baltimore, Maryland, that the incineration of trash by Wheelabrator, to Cease and Desist immediately. In order for this to come to fruition, our City, our lawmakers, and Wheelabrator have to demonstrate a genuine level of compassion for humanity. What is your degree of compassion? Please save our lives.

May God have mercy on US!

For these reasons, **we respectfully urge a favorable report on SB590**.

Donna Kirkpatrick

RREA_SB590__ACT_FAV.pdf
Uploaded by: Gabrielle Ross
Position: FAV

Assateague Coastal Trust – PO Box 731, Berlin, MD 21811 – 410-629-1538

Favorable Testimony for SB590-Reclaim Renewable Energy Act

Bill Sponsor: Senator Karen Lewis Young

Committee: Education, Energy, and the Environment Committee

February 28th, 2023

Dear Chairman Feldman and Members of the Committee,

Thank you for this opportunity to submit testimony in support of **SB590**, on behalf of Assateague Coastal Trust (ACT), the Waterkeeper program for the lower Eastern Shore of Maryland. ACT protects and defends the health of Delmarva's coastal waters through advocacy, education, science, and the enforcement of just and equitable clean water laws.

Since the RPS program was created in 2004, the energy sources counted as "renewable" have gotten dirtier and dirtier - harming Maryland ratepayers and harming Maryland's chances of cleaning up our grid to act on the current climate crisis. Maryland must reclaim our Renewable Portfolio Standard and put our clean energy subsidies where they belong: truly renewable, **emission-free energy.**

In the anaerobic digestion of factory farm waste, chicken manure and other materials such as poultry renderings, fats, oils, greases, etc. are fed into a digester where it is broken down by specialized methane-producing microorganisms that can only thrive in the absence of oxygen. Since factory farms produce unmanageable volumes of waste, digester facilities are often touted as a solution to the environmental issues that waste creates. However, this is a false promise - sending animal waste to a digester creates methane but does nothing to mitigate the significant air or water quality issues associated with factory farms. Additionally, the anaerobic digestion process leaves behind a digestate that must still be disposed of. Problematically, the nutrients in this **digestate can be rendered more water soluble** than those in unprocessed chicken litter, and yet it is often spread on to fields as fertilizer, where it runs off into the local waterways.

Anaerobic Digestion is the latest energy scheme, which focuses on propping up the industrial chicken farming practices that have been plaguing our citizens and waterways for decades as well as creating methane gas infrastructure and facilities seeking to be placed in areas where there are already overburdened communities. I would like to put forth the following concerns for your consideration:

1. **Digesters guarantee the life of a waste stream.** This is explicit in Bioenergy DevCo's materials, "If the goal is production of consistent renewable natural gas: consistent feed stocks are key."[i]

2. Digesters exacerbate nutrient run-off. According to USDA, "Land application of digester effluent, compared with fresh manure, may have a higher risk for **both ground and surface water quality problems.** Compounds such as **nitrogen, phosphorus**, and other elements become more soluble due to anaerobic digestion and therefore have higher potential to move with water."[ii] This would drastically impact farmers' Phosphorus Management Tool.

3. **Digesters do not get rid of waste. They do not address nitrogen and phosphorus problems.** According to the USDA "An anaerobic digester does not change the volume of the material or the amount of nutrients in the waste stream. The by-products from the system will need to be utilized in accordance with the nutrient management plan." As well as "Biogas is flammable, highly toxic, and potentially explosive."[iii]

4. Research shows that a 2-15% leak rate from the major directed biogas projects on the Eastern Shore could **release up to 5,187 metric tons of methane** – comparable to the greenhouse gas emissions from almost 100,000 gas-powered cars on the road all year. [iv]

5. No matter the source, **burning methane produces CO_2**. Furthermore, it is an even more potent greenhouse gas in and of itself when it leaks into the atmosphere. Studies show that in 2015, leaks along the natural gas supply chain were approximately 60% higher than the U.S. Environmental Protection Agency inventory estimate.[v]

Currently, no Maryland anaerobic digestion facilities exist in the RPS, meaning no AD company in MD is losing out on current RECs. However, two out-of-state AD facilities are receiving MD tax-payer dollars, which include:

- Buckeye BioGas - Wooster - OARDC, in Ohio, (4,546 RECs)
- Zanesville Energy - Zanesville, in Ohio, (1,878 RECs)

In 2016, the state of Ohio brought a lawsuit against Buckeye BioGas based on numerous Ohio EPA inspections and 250 citizen complaints. [vi]

Energy companies and the agricultural industry promoting any non-fossil-fuel methane as "renewable" despite its climate impacts is a slap in the face for all Marylanders. Since the construction of so-called "biogas" facilities is extremely costly, they are generally not profitable without subsidies and incentives. **Its inclusion in our RPS provides an unwanted financial incentive to add new greenhouse gas emitting technology to our grid under the guise of renewable energy - on the public's dime.**

Because of the inclusion of these polluters in the Renewable Portfolio Standard, Maryland ratepayers paid over $30 million to buy Renewable Energy Credits from facilities that emit greenhouse gasses in 2020, and over $246 million since 2008. The Public Employees for Environmental Responsibility estimates that if nothing changes, those costs will mount to half a billion dollars subsidizing polluters by 2030. **We need to be using taxpayer RPS funds to further assist real renewable energy sources to stay and grow in Maryland.**

Maryland families have had enough of major polluting industries making record profits while harming vulnerable populations with air and water pollution. Please don't allow the RPS to become a blank check for yet another polluting industry that uses green-washing schemes to confuse the public. Maryland needs clean, reliable, and emission-free energy now, our future depends on it. **For all these reasons and more, we urge a favorable report on SB590.**

Thank you for your consideration,

Gabrielle (Gabby) Ross, Assateague COASTKEEPER®
Assateague Coastal Trust
coastkeeper@actforbays.org

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[i] Ettinger, P. (n.d.). *Anaerobic Digestion and Renewable Energy Solutions*. Google Drive. Retrieved February 24, 2023, from https://drive.google.com/file/d/1eixdfTb5lT2mzBSw5qJ1rtPcOtfy7VZb/view

[ii] United States Department of Agriculture. (n.d.). *Code 366 (no.) - nrcs.usda.gov*. Retrieved February 24, 2023, from https://www.nrcs.usda.gov/sites/default/files/2022-08/Anaerobic_Digester_366_CPS_Oct_2017.pdf

[iii] United States Department of Agriculture. (n.d.). *Effects of NRCS conservation practices - national anaerobic digester*. Retrieved February 24, 2023, from https://www.nrcs.usda.gov/sites/default/files/2022-08/Anaerobic_Digester_366_CPPE.pdf

[iv] Dunham, K., & Ross, G. (2023, January). *Directed Biogas in Delmarva*. Retrieved February 24, 2023, from https://drive.google.com/file/d/1-k7cE8zXLim0q-7N4B0crujZlgHkc247/view

[v] *Report: The myth of "Renewable natural gas" for building decarbonization*. Earthjustice. (2020, July 14). Retrieved February 24, 2023, from https://earthjustice.org/feature/report-building-decarbonization

[vi] State of Ohio v. Quasar Energy Group, LLC (https://www.courthousenews.com/wp-content/uploads/2017/05/QuasarSuit.pdf n.d.).

SB 590 - MoCo_Fitzgerald_FAV (GA 23).pdf
Uploaded by: Garrett Fitzgerald
Position: FAV

Montgomery County
Office of Intergovernmental Relations

ROCKVILLE: 240-777-6550 **ANNAPOLIS: 240-777-8270**

SB 590 **DATE: February 28, 2023**

SPONSOR: Senator Lewis Young

ASSIGNED TO: Education, Energy, and the Environment Committee

CONTACT PERSON: Garrett Fitzgerald (garrett.fitzgerald@montgomerycountymd.gov)

POSITION: Support

Renewable Energy Portfolio Standard – Eligible Sources – Alterations
(Reclaim Renewable Energy Act of 2023)

The Renewable Portfolio Standard (RPS) was established to encourage the development of clean, renewable, domestic sources of electricity generation like wind and solar. This bill will refocus the RPS by removing energy derived from waste, wood waste products, and animal manure from counting as Tier I renewable energy sources. Removing these relatively dirty and greenhouse gas-producing resources will appropriately focus investment dollars on the development of wind and solar resources in our region.

Waste-to-energy is misaligned with the goal of the RPS. These systems are primarily designed to accomplish solid waste management, generating electricity as a by-product. Including waste to-energy as a Tier I resource under Maryland's RPS incentivizes these systems and could slow the development of cleaner and more truly renewable energy sources.

Removing waste-to-energy from RPS eligibility will result in a short-term financial impact to Montgomery County due to the loss of revenue from renewable energy credits. However, this change will be valuable in the long-term, as it will help us to achieve Montgomery County's climate and zero waste goals.

We respectfully request that the Education, Energy, and the Environment Committee issue a favorable report on Senate Bill 590.

CCBA_Testimony Supporting SB590.pdf
Uploaded by: Gregory Sawtell
Position: FAV

Testimony Supporting SB590
Senate Education, Energy, and the Environment Committee
February 28, 2023

Position: SUPPORT

Dear Chair Feldman and Members of the Committee,

The Community of Curtis Bay Association (CCBA), located in District 46, is writing in strong support of SB590, the Reclaim Renewable Energy Act, as a critical step towards addressing climate change and advancing a just transition to Zero Waste:

REDIRECT SUBSIDIES for the incinerators, landfills and dirty energy we are transitioning away from

BUILD AND STRENGTHEN LOCAL END MARKETS for compost, recycled commodities and truly renewable energy.

STRONGER STANDARDS that protect our health, worker safety and our shared environment, including a Cumulative Impacts law that takes into account the pollution sources a community already has when considering new polluting developments.

HEALTH AND DEVELOPMENT FUNDING to mitigate the costs of hosting toxic waste infrastructure for decades --- paired with a "Just Transition for Zero Waste and green infrastructure Fund" to develop new community-owned compost, recycling, deconstruction, reuse and green infrastructure to end reliance on toxic waste and energy infrastructure.

PROTECTIONS for sanitation and other workers as we transition from outdated technologies to current approaches

Curtis Bay is a frontline Environmental Justice community that sits near the majority of Baltimore's regional waste infrastructure - including the city's worst single source of air pollution - the BRESCO Incinerator. Incineration is an outmoded false solution to managing the bi-products of production and consumption. As we work to reduce waste down to zero through smart public policy the calls for engineering a world without waste, we should be shifting to infrastructure that responsibly composts, recycles and re-uses residuals. The last thing we should do is link the production of energy to the practice of wasting.

Sandly, our community has had to deal not only with the impacts of two nearby incinerators (BRESCO plus the nation's largest medical waste incinerator) but from 2009-2016 a tremendous amount of our energy as a community was consumed with resisting the plan to build the nation's largest trash burning incinerator less than a mile from our schools and homes. The branding of incinerators as renewable energy, codified in MD state law, made this proposed development incredibly misleading to public institutions seeking to do the right thing by purchasing renewable energy. Imagine the undermining of public trust when students throughout our regional school districts learned that their building would be powered, in part, by a trash burning incinerator that would be polluting the air their friends in South Baltimore would breathe everyday.

Thankfully, students and residents worked together to persuade public officials to change course on that proposed development and stopped it. From 2015 to the present, residents also helped develop a path forward that ends reliance on incineration and reduces use of landfills through development of new zero waste infrastructure including compost facilities supported, now, by MD's organic diversion legislation. We are proud to have contributed to these efforts and believe full in Maryland's zero waste future.

A critical next step is to remove ongoing support for dirt trash incinerators that slows progress towards both clean renewable energy and zero waste goals. You see, As long as we prop up large trash incinerators, local waste diversion goals will be undermined by a strong pressure to continue feeding the burners. Some incinerators even mandate and sue municipalities for not sending enough waste (as was the case recently when Baltimore County was sued by the private equity firm who owns the BRESCO incinerator).

Hopefully, we can all agree and act upon the common sense idea that we should be supporting businesses that help us waste less not more! Add to this the fact, that the true cost of burning trash is not currently accounted for in the corporate balance sheets. Health and environmental costs will continue to be passed onto those who live in communities like Curtis Bay in 2 main forms: first, increased asthma and other respiratory diseases and cancers and second, weakened community economic development potential in the form of more vacant homes, fewer small businesses and declining sense of belief in the ability to improve our community.

Curtis Bay will never give up…we have been through over a hundred years of industrial disaster after industrial disaster. We have already lost our three former neighboring communities forever due to involuntary displacement brought upon by policy that prioritized polluting industry over the health and safety of voting workers and residents. Now, we are looking for concrete action from Annapolis that our state officials aren't giving up on us in Curtis Bay.

This bill will make sure that our subsidies for renewable energy through the Renewable Portfolio Standard are going toward actual renewable energy, not being wasted on things that emit greenhouse gasses and add even more health burdens to environmental justice communities. We are in a climate crisis, and we cannot afford to be spending our renewable energy money on facilities that pollute. Now is the time to double down on Maryland's commitment to truly renewable energy and subsidize only facilities that are emissions-free.

This bill will eliminate three types of energy from Maryland's RPS: trash incineration, woody biomass, and factory farm methane gas. All three of these pollute the environment, harm nearby communities' health, and contribute to climate change. Subsidizing them takes money away from the real renewable energy that we need, and it also tilts waste markets toward the worst methods of managing our waste. Subsidies exist to support the things we want, so why are we subsidizing things we don't want in our communities? Let's put those subsidies toward wind and solar power, and let the waste sector work on managing waste.

Please support SB590 and stop sending Maryland's renewable energy money to facilities that emit such enormous amounts of greenhouse gasses. Thank you.

Sincerely,

The Community of Curtis Bay Association

www.ilovecurtisbay.com

SBCLT_Reclaim Renewable Energy Act2023.pdf
Uploaded by: Gregory Sawtell
Position: FAV

Testimony Supporting SB590
Senate Education, Energy, and the Environment Committee
February 28, 2023

Position: SUPPORT

Dear Chair Feldman and Members of the Committee,

The South Baltimore Community Land Trust (SBCLT), based in District 46, is writing to share the comments from hundreds of residents expressing strong support of SB590, the Reclaim Renewable Energy Act, as a critical piece in a systematic approach to climate change and advancing a just transition to Zero Waste that must:

REDIRECT SUBSIDIES for the incinerators, landfills and dirty energy we are transitioning away from

BUILD AND STRENGTHEN LOCAL END MARKETS for compost, recycled commodities and truly renewable energy.

STRONGER STANDARDS that protect our health, worker safety and our shared environment, including a Cumulative Impacts law that takes into account the pollution sources a community already has when considering new polluting developments.

HEALTH AND DEVELOPMENT FUNDING to mitigate the costs of hosting toxic waste infrastructure for decades --- paired with a "Just Transition for Zero Waste and green infrastructure Fund" to develop new community-owned compost, recycling, deconstruction, reuse and green infrastructure to end reliance on toxic waste and energy infrastructure.

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Please pass the Reclaim Renewable Energy Act so that those funds can support new wind and solar power instead while also assisting us in the transition to Zero Waste we so urgently need.

Please see the comments below from hundreds of residents from across the state of Maryland calling for urgent action in support of cleaning up the RPS as part of a comprehensive approach to addressing climate change and advancing a just transition to Zero Waste:

FIRST	***LAST***	***ADDRESS***	***COMMENT ON WHY ENDING SUBSIDIES FOR DIRTY ENERGY IS CRITICAL AS PART OF A SYSTEMATIC APPROACH TO CLIMATE CHANGE AND ZERO WASTE SOLUTIONS***
jeanne	***mccann***	***732 Light Street***	
Neil	***Seldman***	***3362 Tennyson Street, NW***	***Zero Waste leads to economic growth, environmental justice and a healthy city.***
Rev. Michele	***Ward***	***1316 Park Avenue Baltimore MD 21217***	
Marilyn	***Carlisle***	***1238 Ramblewood Road***	***We must reduce what we incinerate and what we put in the landfill.***
Twannes hia	***Thomas***	***904 Allendale Street***	***It's time that we start being fully responsible for our home, Earth. No longer can we be ignorant to the fact that we our destroying our planet.***
Valeska	***Populoh***	***3202 JUNEAU PL***	***This is a solution that is within reach and creates so many benefits for people and communities, while reducing toxic burdens on ecological systems as well!***
Nina	***Cardin***		***a healthy environment is an essential foundation for all other human rights!***

Nicole	*Davis*	*715 Argonne Drive Baltimore, Maryland 21218*	
Andrew	*Hinz*	*1427 Park Avenue*	*clean air is a human right*
Ursula	*Populoh*	*3708 Kimble Rd*	
Meleny	*Thomas*	*PO Box 19762*	*This commitment matters because we NEED to act now to stop even harsher effects of climate change*
Nicole	*Davis*	*715 Argonne Drive Baltimore, Maryland 21218*	
Ethan	*Hasiuk*	*3133 N Calvert St Apt 3*	
Kurt	*Schwarz*	*21042*	*The people downwind of Bresco have suffered from too long the polluted air created by the incinerator. End this greenwashing now, it is killing our neighbors.*
Johanna	*Wermers*	*9712 Delamere Ct., Rockville, MD 20850*	*We need to have clean, unpolluted air and not be contributing to climate change.*
Cleoda	*Walker*	*1200 D. Cherry Hill Road*	*Community, Public Health, Climate Change*
Malcolm	*Heflin*	*251 S Highland Ave, Baltimore, 21224*	*Because it means a lot to me and to the city to make sure that we implement the Zero Waste Plan, and a part of that process needs to lead towards a composting center that can serve communities all over the area.*
David	*Neun*	*246 Cinder Road, Timonium, 21093*	
Stephen	*Leas*	*2834 N Calvert St 21218*	*We need zero waste infrastructure ASAP*
Richard	*Reis*	*103 W 39thSt #A2, Baltimore MD 21210*	
Andrew	*Hinz*	*1427 Park Avenue*	*clean air is a human right*
ruth	*cassilly*		
Saul	*El-Or*		*Because it's time to think beyond $ and take in consideration what's good for our planet and what we are leaving to our grandchildren! It is time to stop chopping the branch we are sitting on!*

Rachael	*Mady*	*4870 Dorsey Hall Drive, Unit 8, Ellicott City, MD 21042*	*This matters to me because it is not only good practice to make less waste, but it also is curcial that we protect and lift up communitise in Baltimore that bear the burden and literally lose their lives to the broken waste system.*
Chloe	*Ahmann*		
Phil	*Webster*	*21046*	
Kara	*Korab*	*2415 Eutaw Pl*	
nancy	*sawtell*	*3333 Burnet Ave*	*without clean air, the opportunity to grow and flourish is denied.*
Victoria	*Manogue*		
Hannah	*Brancato*	*3111 Berkshire rd*	*For our future!*
Onyịnye	*Alheri*		*Too many to name. Most simply, we deserve to live healthy full lives on a vibrant, thriving planet EARTH.*
Nicole	*Fabricant*	*403 Hollen Road*	*I have seen the health consequences of incineration.*
Megan	*Latshaw*	*202 Saint Dunstans Rd*	
Sya Buryn	*Kedzior*	*Dept. of Geography, Towson University, 8000 York Rd, Towson, MD 21252*	
Monica	*O'Connor*	*301 Avondale Circle*	
Amanda	*DeStefano*	*2802 Lake Ave, Baltimore, 21213*	
Leana	*Houser*		*Baltimore residents deserve clean air, safe and well paying jobs, and an environment that supports our health, well being and our future.*
Genee	*Smith*		
Sarah	*Merrow*	*2634 N. Calvert St.*	*Air quality in Baltimore is terrible, especially in the humid summer months. The BRESCO trash incinerator is a major source of air pollution here. Until we can evolve and eliminate the burn-and -bury approach to*

			dealing with trash, we can teach everyone how to reduce waste. We can do SO MUCH better, and what is needed is education and leadership.
Lori	*Rawle*	*13 Southfield Pl, Balto 21212*	*BRESCO should have been shut down, it can no longer claim to be a Green alternative. Food waste has value as compost and should not be increasing the need for landfills.*
Claire	*Knezevic*	*800 E 35th St Baltimore, MD 21218*	
Donna	*Eden*	*4 Seminary Dr*	
Alexis	*Stone*	*909 Walker Avenue Apt 3117*	
Cathy	*Eskey*	*5005 Boxhill Lane Baltimore Md 21210*	*Starve the incinerator to shut it down! Slow/Stop climate change!*
Fransiska	*Dale*		
Richard	*Reis*	*103 W 39th St A2, Baltimore MD 21210*	*Sustainable environment*
Martha	*Hollemann*	*4904 Wilmslow Road*	
Nicole	*Labruto*	*3905 Juniper Road, Baltimore, MD 21218*	*Exploitative waste management technologies adversely affect BIPOC community members' health outcomes and environmental landscapes. Viable alternative solutions exist, and we need to support them now!*
Dorothea	*Lankford*	*PO BOX 1333 Brooklandville MD 21022*	
Mary	*Odell*	*3213 Abell Ave. Baltimore, 21218*	
James	*Cleghorn*	*4000 N Charles ST*	
Amal	*Hussain*	*11708 Pindell Chase Drive*	
Kurt	*Schwarz*	*21042*	

Baltimore Peoples	*Climate Movement*		
Eric	*Miller*	*4906-1 Columbia Road, Columbia, 21044*	
Nina	*Cardin*		*a healthy earth caring for healthy people matters!!*
Marilyn	*Carlisle*	*1238 Ramblewood Road*	
Peggy	*Meyer*	*33 Andrew Place, Baltimore, Md 21201*	*We waste so much that can be used to improve our environment. Giving BRESCO 10 more years was disgusting and we need to help reduce their pollution.*
Jessica	*Berman*	*503 East Capitol ST SE Wash DC 20003*	
Melia	*Jannotta*	*2641 N Howard St*	*We need to start diverting waste so we can stop polluting our air and our communities and SHUT DOWN BRESCO!!!*
Andrew	*Hinz*	*1427 Park Avenue*	
Mansha	*Kapur*	*116 W University Pkwy, Baltimore, 21210*	
Spencer	*Ellsworth*	*Abell*	
Rodger	*Carter*	*Linden Chapel Rd, Clarksville, MD 21029*	*Clean air is important to health.*
Katherine	*Galbreath*	*2809 N Howard Street*	
Erin	*Ryan*	*600 South Paca, Baltimore, 21301*	
Charles	*Eubanks*	*2117 E Pratt St, apt 3A Baltimore, MD 21231*	*I want a clean city to live in.*
Hannah	*Lin*	*1321 North Calvert Street*	
Alex	*Baglione*	*1405 Andre Street, 21230*	*Baltimoreans deserve to live in a clean city! So do our tourists, visitors, guests, etc.*
Emilia	*Ochoa*	*2834 Guilford Ave*	*The burning and burying system is killing our planet and our community. The*

			transition to zero waste will create better sustainable jobs that help our city
Molly	*Pickel*	*21230*	
Angelica	*Brooks*	*1010 Cherry Hill Rd*	
Toby	*Harris*	*Baltimore MD 21201*	
Rachel	*Schmid-James*		
Mia	*Dyer*		
Nell	*O'Hara*		
Hannah	*Mitchell*		
Megan	*Latshaw*	*202 Saint Dunstans Rd*	
Thomas	*Potter*	*7844 Flintshire Ct., Pasadena, MD 21122*	
Gracie	*Chaney*	*16 Clinton Hill Ct, Catonsville, 21228*	*I want to help starve Bresco incinerator*
Matthew	*Humphrey*	*3045 Saint Paul Street*	
Robyn	*Stegman*	*2804 Huntingdon Ave.*	
Katherine	*Longabaugh*	*E 30th St, Baltimore 21218*	
Diane	*Wittner*		
Eric	*Smith*		
Kara	*Korab*	*2415 Eutaw Pl, Baltimore, 21217*	
Michelle	*Rockwell*	*730 Brookwood Rd*	
Cathy	*Eskey*	*5005 Boxhill Lane Baltimore 21210*	*I am a Baltimore City resident, and a mother of an asthmatic daughter and a grandmother of an asthmatic granddaughter, who have since relocated to the county. The lungs of Baltimore residents are breathing in the policy that our elected officials put through. I want to make sure they support policy that fills our lungs, their constituents' lungs, with clean air! An exodus to the suburbs needn't be my Family's clean air solution!*
Joanna	*Brandt*	*2525 Pot Spring Road, S713*	

Cecilia	*Plante*	*1021 HOLDEN RD*	
Mary	*Clarke*	*3911 Cloverhill Road baltimore MD 21218*	*I am a Zero Waste advocate who learned "how to help" from Ben Franklin students, neighborhood residents, and leaders of South Baltimore.*
Lee	*McNair*	*4707 Chevy chase dr apt 203*	*I see this as an opportunity to take equitable action to reduce the terrifying damage of current pollution while reducing the catastrophic risks of climate change.*
Joyce	*Bailey*	*21730 Beallsville Rd, Barnesville MD 20838*	*We need to work together to solve the challenge of climate change and air pollution. Having Baltimore move ahead with this helps it citizens and those of us in the surrounding areas and provides guidance to other jurisdictions who wish to do the same.*
Nanci	*Wilkinson*	*5502 Glenwood Rd Bethesda MD 20817*	
Lee	*McNair*	*4707 Chevy Chase Dr Apt 203*	*Climate change is complex but very real and very dangerous. Still it offers amazing opportunities for good paying jobs, for composting and regenerative farming, for a healthier economy, and much more. To me, this is a chance to do good in the world and set a shining example to the rest of the world.*
Jayden	*Johnstone*	*363 Schooner Lane*	
Diane	*Wittner*		
Monica	*OConnor*	*301Avondale Circle*	
Nina	*Cardin*		
Lore	*Rosenthal*	*2 Gardenway, Unit R*	
Diana	*Younts*	*206 spring avenue*	*Incinerator pollution kills*
Gwen	*DuBois*	*1817 Sulgrave Ave*	
Michelle	*Rockwell*	*730 Brookwood Road*	*Establishing a zero waste infrastructure in Baltimore city is critical for the well being of our citizens and our environment.*

Robert	*Frier*	*21231*	
Phil	*Webster*	*7553 Broadcloth Way*	*Burning trash is extremely harmful!!*
Mary	*Rodgers*	*7553 Broadcloth Way*	*This is a matter of justice for the people of Baltimore!!*
Nanci	*Wilkinson*	*5502 Glenwood Rd Bethesda MD 20817*	
dianne	*seiffert*		*Baltimore's leadership on Zero Waste influences actions by every other government and waste disposal entity in the State, and it's a great job creator! Do it now!*
Stephen	*Leas*	*2834 N Calvert St*	*We need zero waste infrastructure, good jobs, community management, and a just transition. My number one concern is climate justice and Baltimore can lead the way towards a Green New Deal.*
Sarah	*Jamieson*		
Kathleen	*Holmay*	*9607 Kingston Road - 20895*	*It's obvious.*
Sarah	*Preston*	*3109 Plyers Mill Rd.*	*We need to implement climate change solutions wherever we can.*
Patrice	*Gallagher*	*115 E 5th Street, Frederick, MD 21701*	*We fought an incinerator project in Frederick County for 8 years and learned along the way that there are many ways to divert materials away from the landfill and reuse or compost them. We are working to make organics diversion and compost production a robust system here in our county.*
Nancy	*Janssen*	*1900 Lyttonsville road, silver Spring MD 20910*	*Quality of life*
Katherine	*Jakuta*	*919 West 33rd Street, Baltimore MD 21224*	
Dorcas	*Robinson*	*8305 Meadowbrook Lane, Chevy Chase, 20815*	
Liz	*Feighner*	*10306 CHAMPIONS WAY*	*Howard County incinerates plastic waste from their recycling facility and it needs to stop. We live downstream and are affected by the incinerator - which needs to shut*

			down. I don't want my tax dollars to subsidize the incinerator. Composting helps sequester carbon and we are in a climate emergency.
George	*Jakuta*	*919 W. 33rd St.*	
Doris	*Nguyen*	*5101 Waukesha Rd*	*An opportunity to provide new jobs while reducing pollution and methane gas production is a no-brainer.*
A	*Loerke*		
Mary	*Ashanti*	*28684 Ocean Gateway*	*Environmental Justice issue.*
Lauren	*Greenberger*	*22810 W. Harris Road Dickerson Maryland 20842*	
Kathleen	*Sheridan*	*5103 Waukesha Road,, Bethesda, MD 20816*	*Influence on climate change, environmental health, public health*
Diana	*Conway*	*10600 River Rd*	
Julia	*DiMauro*		
Laurie	*McGilvray*	*7010 Woodland Ave.*	
Sya	*Kedzior*		
Kathleen	*McCord*	*104 St. Francis Ct. Apt, Suite, Bldg. (optional)*	
Lauren	*Greenberger*	*22810 W. Harris Road Dickerson Maryland 20842*	
Ann	*Jackson*	*124 Bay Park Way*	
Dick	*Williams*	*1300 Likden Green, Baltimore. 21217*	
Ola	*Adesunloye*	*7304 Willow Glen Way*	*It matters to me because we have an opportunity to incite a fundamental shift in the ways that the City looks at waste and treats it. It matter because by implementing a zero-waste system, we would be saving lives through the limits of toxic waste, and allowing communities the agency to choose what happens to not only their waste, but their land as well.*

Ellen	*Barfield*	*814 Powers St, Baltimore, MD 21211-2510*	*Jobs, reducing pollution, avoiding incineration. We must handle our waste differently.*
Dan	*Watson*		
Rachel	*Whitehe art*		
Andrew	*Hinz*	*1427 Park Avenue*	
Anna	*Crowe*		*Environmental justice is essential to health and safety of our current population. We must protect the members of our community that are being so significantly harmed by the current waste systems in place by implementing theses zero waste initiatives for health of the community members and the environment.*
Dave	*Arndt*	*1445 Haubert St. Baltimore MD 21230*	*We have to do better. The Incinerator is at the intersection of Climate, Environmental, and social Justice issues.*
Catherin e	*Dees*		*All Marylanders deserve a cleaner environment. With our population density in central Maryland, this is especially critical.*
Diane	*Wittner*	*243 Stanmore Rd*	*I was on the team that fought the Energy Answers incinerator and own a zero waste business Echotopia LLC.*
Johanna	*Wermers*	*9712 Delamere Ct., Rockville, MD 20850*	
Katherin e	*Galbreat h*	*2809 N Howard Street*	
Mary Jo	*Kirschm an*	*21214-3136*	*survival*
Ellen	*Barfield*	*814 Powers St, Baltimore, MD 21211-2510*	*We absolutely MUST end incineration, greatly reduce plastics and really recycle the rest, refill or recycle glass and metal.*
Taji	*Amani*		
Louise	*Gregg*	*5701 Chinquapin Pkwy, Apt. D, Baltimore, 21239*	

Anne	*Mesaros*	*1606 Latrobe St*	*Climate change is a human-made problem and we have a responsibility to the earth and ourselves to take action against it. IN PARTICULAR, communities of color are disproportionately negatively impacted by climate change and the harm caused to the environment. This is a justice issue in every way.*
Anand	*Pandian*	*3714 Beech Avenue, Baltimore, MD 21211*	*As a professor and teaching of environmental studies and anthropology at Johns Hopkins University, I believe strongly in the value and necessity of this commitment.*
Andrew	*Fisher*	*3133 Fait Ave*	
Valerie	*Bardhi*	*1150 Carroll st. Baltimore 21230*	
Keisha	*Allen*	*2218 Sidney Avenue Baltimore MD 21230*	
Heather	*Hax*	*1442 Redfern Avenue*	
Laurie	*Anderson*	*304 Washburn Ave, Baltimore, 21225*	
Anne	*Wilson*	*21210*	*The climate crisis is here and we need to do everything in our power to convert our polluting way of life to life-sustaining systems that do not threaten our health and safety. Low-income and majority-POC neighborhoods and individuals are disproportionately harmed by the status quo. Taking a bold step toward zero waste is one way to move toward shutting down our trash incinerator, which is a shameful blight on our city and a product of the systemic racism that has shaped Baltimore since its earliest days.*
Cameron	*Walkup*	*Westgate*	
Anna	*Word*	*2331 Guilford Ave. Baltimore 21218*	
Sarah	*Fouts*	*2624 St Paul Street 1b*	

Matthew	*Lewis*	*2118 Saint Paul St Apt 2, Baltimore, MD 21218*	*This matters because the incinerator is a public health and climate disaster. We need Zero Waste!*
Dillon	*Mahmoudi*	*225 S Collington Ave, Baltimore, 21231*	*Divert waste so we don't pollute our air!*
Stephen	*Leas*	*21218*	
Nicole	*Labruto*	*3905 Juniper Rd, 21218*	*Incineration is a violence against Black communities and the environment. Support Zero Waste in Baltimore and shut down the BRESCO incinerator NOW!*
Kiana	*Fok*	*4501 Worthington Manor Way*	
Christy	*Thornton*	*3811 Canterbury Rd Apt 908 21218*	
Thomas	*Potter*	*7844 Flintshire Ct., Pasadena, MD 21122*	*We all have such a tremendous impact on the disenfranchised communities around us! We need to do so much more in the pursuit of environmental justice.*
Elizabeth	*Luns*	*107 Bachtell Circle, Smithsburg MD, 21783*	*I am a very strong advocate for stopping climate change and creating sustainable waste removal and energy sources. This proposal would be extremely beneficial not only for the Earth's health, but for our own as the emitted CO2 and toxins would be cleared from our air.*
Emily	*Johnson*	*1802 Furnace Road Jarrettsville MD 21084*	*This should matter to everyone. Diverting and recovering waste impacts so many areas of life for everyone. However this makes the greatest impact for the population living in South Baltimore. Let's make an important choice and step to impact our community.*
Rachael	*Mady*	*4870 Dorsey Hall Drive, unit 8, ellicott city, md 21042*	*This matters to me this is intersectional, in that is important to combat waste, climate change, and health risks to our community.*
Colin	*Hickey*	*203 Smallwood Drive*	*We should all work to build a society that harms as the environment as little as possible.*
Alexandra	*Frieze*	*25 Acorn Circle, apt 304, Towson, MD, 21286*	

Richard	*Soucy*	*20 Bonbon Court*	*Incinerators are bad for the enviornment*
Briseyda	*Barrientos-Ariza*	*430 Towson Way, Towson, MD 21251*	*because I want people to have futures — good futures.*
Guelila	*Iyob*	*26033 Ridge Manor Dr, Damascus, MD, 20872*	*incinerators disproportionately affect black and brown communities and to ensure that these communities are kept safe, as well as the generations to come, we must find another way to get rid of waste*
Kendall	*Howze*	*440 Towson Way, Towson, Md 21036*	
Cooper	*Hoffman*	*101 York Road, Room 629B, Towson, MD, 20878*	*Removing harmful food waste, and a transition to a net-zero carbon footprint, is essential in maintaining the planet we still have.*
Jordan	*Warner*		
Colin	*Mullican*		
Jeb	*Pappas*	*8000 York road, Towson MD, 21252*	*I don't want pollution and people to die*
Jenna	*Hoogervorst*	*1627 Cottage Lane Towson, MD 21286*	*As a Towson University Student it is important to me that the institution I belong to stop contributing to the incineration process that is harming Baltimore residents and the planet at large.*
Seon	*Tromble*	*12 Aigburth rd*	*A clean environment benefits all of us. We're just dooming ourselves if we don't take these issues seriously.*
Kellie	*Anderson*	*1736 Patapsco Street*	
Julia	*Beall*	*25911 Clarksburg Rd, Clarksburg, MD 20871*	
Chris	*Ritzo*	*Highland Ave, Baltimore, 21224*	
Chris	*George*		
Jane	*Skillman*	*3632 Keystone Avenue Baltimore MD 21211*	
Nathanie l	*Sbar*	*1736 Patapsco St*	*I live in Baltimore*
Owen	*Andrews*	*21218*	

Elisabet	*Eppes*	*1402 Park Ave. Apt 1 Baltimore, MD 21217*	
Evelyn	*Hammid*	*2703 Montebello Ter. 21214*	*The BRESCO incinerator is a public health and climate hazard. We must compost our waste for our citizens' and our planet's safety!*
Corey	*Reidt*	*Towson University, Towson, MD*	
Bailey	*Hardwick*		
Virginia	*Graham*	*14028 Blenheim rd N Phoenix MD 21131*	
Rianna	*Eckel*	*2834 N Calvert St, Apt 3F, Baltimore, 21218*	
Amanda	*DeStefano*	*2802 Lake Ave*	
Nicole	*Fabricant*	*403 Hollen Road Batimire MD 21212*	*We need local green infrastructure now and we need to end our addiction to incineration*
Tanesha	*Davis*	*3413 Springdale Ave, Baltimore,21216*	*We NEED to stop burning food waste and create a local compost facility in Baltimore to send our food waste to. This will also create good job for residents.*
Shashawnda	*Campbell*	*3413 Springdale Ave, Baltimore ,21216*	*We know we have to stop burning and burying all our waste because it is putting people lives at risk. We can begin to step away from our past of smoke clouds from the Bresco Incinerator by creating local compost infrastructure. This local compost infrastructure will not only start to divert waste from BRESCO but, it will also create local jobs for residents.*
Ariel	*Richardson*	*2800 N Calvert St APT 3B, Baltimore, 21218*	
Twannesshia	*Thomas*	*904 Allendale Street*	*We must save our planet!!!*
Anderson	*Lemus - Del Cid*	*9318 Paragon way*	*I'll put it simply: We need to do everything possible in order to save our planet of the*

			eminent environmental disaster if we don't take immediate action.
Loraine	*Arikat*	*2420 Callow Avenue*	*Incineration of food waste is a public health crisis and environmental justice issue! There are clear alternatives that center the health of residents, create sustainable union jobs, and make our environments livable.*
Mae	*Hanzlik*	*1818 Eutaw Place, Baltimore, 21217*	
Derek	*Chapel*		
Clarissa	*Chen*	*15 Wt Vernon Pl. Baltimore, MD 21201*	
Sarah	*Kanchuger*		*Please take this progressive action for our children -- inaction is no longer an option!*
Perri	*DeJarnette*	*3412 Niner Road Finksburg 21048*	
Maria	*Smaldone*	*1912 Linden Avenue, Baltimore, MD 21217*	
Emily	*Ryan*	*2337 Cambridge Walk Baltimore MD 21224*	*If we are going to have any chance for normalcy in coming years for Baltimore, we treat climate action as a forefront issue and not a secondary one. Otherwise, all other issues in our city will be exasperated as a result. Furthermore, harmful waste management practices are dangerous to our residents and all of us have a right to cleaner air.*
Faith	*Hupp*	*7900 knollwood rd*	
Hannah	*Young*	*3834 Kimble Road Baltimore MD 21218*	
Farida	*Shourbaji*	*11825 Clarksville Pike Clarksville MD*	
Ellie	*Yanagisawa*	*1527 Bolton St #2*	
Madeleine	*Pope*	*4101 Frisby*	
Hannah	*Freedman*		

Steph	*Saxton*	*3125 N. Calvert St.*	
Hannah	*Lorincz*	*26300 Susan St Taylor, MI 48180*	*Environmentalism is something that everyone, no matter where they are from, should begin to care about. Anything, even the minute move I can do to help, I'll do.*
Isabel	*McLain*	*422 E Lanvale St Baltimore 21202*	*Because I was Baltimore to exist in the future*
Isabel	*Zapata*		
Gray	*Doney*	*26 Chesters Way, Elkton, 21921*	
Xitlali	*Ceballos*	*117 S Schroeder St. BALTIMORE, 21223*	*Because we need sustainable waste systems in the city that can benefit residents and also make communities money. Bmore can be THE CITY that blazes a trail for the rest of the country!*
Joshika	*Money*	*Mosher St, Baltimore, 21217*	
Yun-Yun	*Li*	*428 W 30th St, Baltimore, 21211*	
Ben	*Strigle*		*This will affect the health of generations of Baltimoreans to come. To not side with the people is to betray them and their lives.*
Nicole	*King*	*601 N. Eutaw st.*	*We need to do everything in our power to fight against climate change and for environmental justice in Baltimore.*
Elizabeth	*Greif*	*320 South Washington Street, Baltimore 21231*	
Samuel	*Winans*	*6 Sparrow Hill Ct, Catonsville, 21228*	
Brandon	*Beadle*		
Madyson	*Jones*		
Jacob	*Winans*	*11304 Wacomor Dr Germantown, MD 20876*	
Caitlin	*Winans*		
Thomas	*Winans*	*11304 Wacomor Drive, Germantown, 20876*	*Its a crucial first step to defending the future of the environment and, by extension, the youth*
Sheryl	*Winans*		

Lucy	*Kibuthu*	*1410 shadetree rd. Apt. G, Essex, md, 21221*	
Colin	*Hickey*	*430 Towson Way*	*The people of Baltimore should not have to suffer at the hands of a waste system that does not account for their needs.*
Dante	*Swinton*	*2634 N. Charles St. Apt. 1*	
George	*Buntin*	*913 Lemmon St. Baltimore, MD 21223*	*The environment matters!*
Dave	*Arndt*	*1445 Haubert St.*	*Clear air is good for everyone*
Daniel	*Arndt*	*720 S Ellwood Ave*	*Assist in reducing climate change*
Cindy	*Camp*	*505 Radnor Avenue*	*The health of our children and community matters to me*
Jocelyn	*Providence*	*3320 Lerch Drive*	
Maura	*Dwyer*	*1639 n Calvert st*	
Mark	*Edelson*	*3211 Fait Avenue*	*Achieving zero waste and reducing our carbon footprint are critical for the preservation of our planet.*
Karen	*DeCamp*	*406 Woodford Rd Baltimore, MD 21212*	*We need to invest in decreasing our waste stream - more recycling and composting is what other cites do!*
Kevin	*Gaughan*	*1335 Hull St, Baltimore, MD 21230*	*This is important to me as a resident of South Baltimore who's kid's are impacted by the degraded air quality caused by the local incinerator.*
Kelley	*Koeppen*		
Lillian	*Byington*	*1105 Haubert st Baltimore 21230*	
Elaine	*Arndt*	*1445 Haubert Street*	
Allison	*Blood*	*2818 E. Baltimore St. 21224*	
Annie	*Mesaros*	*1606 Latrobe St Baltimore MD 21202*	*Environmental justice is a racial, civil, and human justice issue! We must take care of our earth to take care of each other.*
Satay	*Israel*	*1014 36th St.*	*Pollution is bad*
Dan	*Watson*		

Chloe	*Ahmann*		*Baltimore has an incredible opportunity to take concrete steps in service of a zero-waste future, and could not be luckier to have youth leaders from South Baltimore leading the way.*
Mary Kate	*Schneider*	*Baltimore, MD 21230*	
Marilyn	*Julius*	*609 W 40th St 1211*	*Because it's the right thing to do*
Andrew	*Hinz*	*1427 Park Avenue*	
Alexa	*Gibbons*	*1470 WOODALL ST*	*A zero-waste system will directly benefit community, labor and our environment.*
Nicole	*Buchholz*	*1525 Cuba St, Baltimore, 21230*	
Benjamin	*Charlton*	*1651 Covington St*	
Lynn	*Cripps*	*126 West Lanvale St , Balto Md 21217*	
Michele	*Hasselberger*	*1362 Andre St. Baltimore, MD 21230*	
Kim	*Acton*	*1352 Andre St*	*It's critical*
Rebecca	*Charlton*		
Darlene	*Dunn*	*1338 And St*	*Our city and earth are too important not to.*
Ryann	*Constable*	*1346 Andre St. Baltimore 21230*	*Saving our environment should matter to everyone!*
Michelle	*Feeney*	*1328 andre street*	*My environment, my health, our city*
Monalisa	*Diallo*	*2101 Bryant avenue*	*Our children deserve better*
Valeska	*Populoh*	*3202 JUNEAU PL*	*I worked with communities in South Baltimore to stop the incinerator from being built near Curtis Bay and Brooklyn. I learned a lot about waste incineration and the impacts on poor communities in Baltimore (and beyond.) I also learned about how alternatives, like composting and recycling infrastructure, can create jobs and other kinds of economic opportunity. We are seeing climate chaos and its impacts. We have to act on all fronts to reduce methane*

			and other greenhouse gases. We have to invest in cleaner infrastructure that also delivers economic benefit for poor and disenfranchised communities. This is a powerful way to move in service of all of those values.
Matt	*Purdy*		
Salman	*Sheikh*	*7826 main falls circle*	*Because the environment should matter. It is a trust for us.*
Sarah	*Sullivan*	*1200 steuart st balti md 21230*	
Caroline	*Wayner*	*632 Saint Johns Road*	*This is such an obvious step to take to make our city greener and healthier for all citizens.*
Brian	*Megali*	*226 S. Ann St. Baltimore MD 21231*	
Liz	*Ensz*	*Baltimore, MD 21211*	
Katie	*Robinson*	*1425 E Clement St*	
Avionna	*Fitzhugh*	*1304 Eutaw Place, Apt 3,Baltimore MD, 21217*	
Maddie	*Taylor*		
Victoria	*Pass*	*113 Cross Keys Road, Unit F Baltimore, MD 21210*	*In addition to this being the right thing for the city to do to begin to address the dire effects of climate change, I have asthma and like so many other people the pollution from incinerating trash has a direct impact on my health. I've been taking my food scraps to the Sisson Street dump for composting, with curbside collection I believe many of my neighbors would collect for composting as well.*
Rani	*Duff*		
Lori	*Niehaus*	*1338 Decatur St, Baltimore MD 21230*	
Sarah	*Bluher*	*2118 Saint Paul St*	*Baltimore residents deserve clean air.*
John	*Walther*		
Kelly	*Berger*	*1432 Decatur St*	

Claudia	*Leight*	*2419 Briarwood Rd*	
Maria	*Brown*	*700 Anneslie Road, Baltimore, MD 21212*	*To reduce toxic exposures in communities of color who live next to the incinerator*
Grace	*Gleason*	*1254 Girard Ave*	
Danielle	*Choma*	*100 Cold Spring Lane Baltimore 21210*	
stacey	*fatica*	*1500 E Fort Ave*	*Because i live here*
emma	*smith*	*14 W Cold Spring Lane, Baltimore, MD 21210*	
Nancy	*Mead*	*107 W. Lee St.*	
Elena	*Conway*	*Remington*	
Lydia	*Hillman*		
Alistair	*Watson*	*2329 S Joyce St*	
Julia	*Gannon*	*1 Fellowship Ct Apt D 21286*	
Cristian	*Martinez*	*7 W Crost St Apt 302*	
Yael	*Bloom*	*891 N Howard St*	*To secure the health and future of Baltimoreans we need to move to a zero-waste system! This move would be healthier for the environment, our bodies, and the economic security of the city. I want to stay here and raise a family! This city needs to prioritize our climate future!*
Layla	*Horeff*	*2204 Essex St*	
Onyịnye	*Alheri*	*21217*	
Jamie	*Wood*		
Logan	*Stratton*	*21219*	
Hope	*Murphy*		
Bailey	*Cohen*		
Sophie	*Redmond*	*4501 N Charles Street Baltimore MD 21210*	*I am a current student at Loyola Maryland and I would like to see my school to reduce their waste and create more sustainable habits.*
Alexandria	*Munoz*		

Isabela	*Botto*	*Cold Spring, Baltimore 21210*	*This earth is our home and we don't need to continue to pollute and hurt the creatures here.*
Maya	*Lindsay*	*1631 old town road*	
Sarah	*Hunt*	*4501 N Charles St*	*Environmental pollution is killing our planet. We will lose our only home if we continue to pollute the way we are.*
Lauren	*Nowicki*	*8203 Royal Star Court*	
Deborah "Spice"	*Kleinmann*	*1208 Regester Ave Idlewylde 21239*	*This matters to me because we need to stop incinerating trash in MD and causing so much pollution and sickness in humans and other organisms!!*
Uta	*Allers*	*603 Scott St., Baltimore, MD 21230*	*Food is not for burning, but for returning to the earth.*
jeanne	*mccann*	*732 light street*	*anything that helps clean up our city!*
Robert	*Frier*	*21231*	*I want to breathe clean air.*
Richard	*Reis*	*103 W 39th St Apt A2*	*Convenience, less wastage, less pollution from incinerator*
Elizabeth	*Lewis*	*1208 Regester Ave*	*I have children and grandchildren and I want a good life for them.*
Jenelle	*Legge*	*4 Stonemark ct apt 9*	*I think that it is very important for ALL communities to be able to breathe cleaner air and have less pollutants that are toxic to our mental and physical state of being. We need to limit trash that is incinerated and in reference to Bresco; they are directly affecting the South West communities that are closest to the incinerator. It has direct, negative health implications on those communities. Lower-income communities should not be forced to live next to these pollutants.*
Beth	*Renwick*	*3309 Abell Ave*	*As a long time Baltimore City teacher I've seen the asthma cases that probably don't need to be from Baltimore's polluted air--a lot of it coming from burning waste. Also, there's only so much space on the planet, let's work with what nature already does to*

			help keep Earth around longer in a more safe-for-everyone way.
Kyra	*McDonnell*	*2001 West Cold Spring Lane, Baltimore, MD, 21209*	
Marie Bernadette	*del Prado*	*4501 N Charles St, Baltimore, MD 21210*	
Matthew	*Berta*	*2410 Eutaw place Baltimore 21217*	
Anna	*Beaulieu*	*2001 W Cold Spring Lane, Baltimore, 21209*	
Lily	*Norris*	*31 Strawberry lane Shelton ct*	
Sya	*Kedzior*		
Chloe	*Callahan-Flintoft*	*3907 Foster Avenue*	*I have a son and I want him to be able to do stuff like breath air and not hoard resources when he's older*
Elizabeth	*Dahl*	*3011 Oak Forest Dr. 21234*	*Waste is a huge source of pollution in many ways. Let's take this step to reduce our waste and work towards a sustainable system. Baltimore is an amazing place - let's be great at this too.*
Lauren	*Adams*	*2744 GUILFORD AVE*	
ida	*kenna*	*21218*	*pollution+waste sucks*
Laura	*Stokes*	*5921 Marluth Ave Baltimore 21206*	
Anand	*Pandian*	*3714 Beech Avenue, Baltimore, 21211*	*Our waste stream could be part of a healthy and regenerative economy rather than an unjust environmental health burden on some of the poorest and most disenfranchised residents of the city. It's time to build sustainable and socially just alternatives to incineration.*
Chad	*Cover*	*6014 Terrace Road*	
Chris	*Broome*		
Catherine	*Eskey*	*5005 Boxhill Lane, Baltimore, Md. 21210*	
Sydney	*Brooke*	*4501 N Charles St*	

Tom	*Eskey*	*5005 Boxhill Lane, Baltimore MD 21210*	*Don't feed the incinerator*
Weber	*DuVal*	*3 Jackson Manor Court*	
ZaQuane	*Dozier*	*21009*	
Emily	*Faber*	*211 E Churchill St, Baltimore MD, 21230*	
Kayla	*Hickman*		*Since the Baltimore region has relied on trash incineration, their has been a consistent disinvestment in recycling and composting infrastructure. South Baltimore is a beautiful and vibrant community, who has consistently spoken up against the incinerator. Black and low income neighborhoods have disproportionately bared toxic air and water pollution. We need clean green union jobs in Curtis Bay and Brooklyn and that starts with this facility.*
Lydia	*Asisten*	*3461 Plumtree Drive Ellicott City 21042*	
Elana	*Wallach*	*1722 Bolton Street, Baltimore MD 21217*	*I would feel so at peace helping this cause, thank you so much for allowing me to sign!*
Jennifer	*Mizgata*	*2919 Saint Paul Apt 1, Baltimore MD 21218*	*Baltimore and its residents deserve to be taken care of and this action will help*
Paul	*Sturm*	*6618 Stirrup Ct*	
Joanna	*Brandt*	*2525 Pot Spring Road, S 713*	
Stephanie	*Ray*	*1423 Madison Ave, Baltimore, 21217*	*Environmental Justice for our communities*
Molly	*Pickel*	*1706 Belt Street*	
Jessica	*Herceg*	*2525 Guilford Avenue*	
Ben	*Roush*	*5502 Elsrode Ave, Baltimore, MD 21214*	
Greg	*Smith*	*4204 Farragut Street, Hyattsville 20781*	
Ahmina	*Maxey*	*5826 Stevens Forest Rd, Columbia, MD 21045*	
Martha	*Barss*	*3105 Tyndale Avenue, Baltimore, 21214*	

James	*Cleghorn*	*4000 N Charles St*	*The kids are leading us to a new future of caring for our planet, before it is too late. Reducing waste and stopping trash incineration for energy are part of that. We appeal to Mayor Scott to heed this petition.*
Andrew	*Szwak*	*501 S Clinton St Baltimore MD 21224*	
Kirsten	*Brinlee*	*1402 E. Fort Avenue, Baltimore, MD, 21230*	*We only get one planet.*
Joseph	*Parrish*	*300 E. 56th St.*	*Toxic fumes and nitrous oxides kill children, exacerbate asthma for all ages, and always increase lung and other cancer rates. After we got an incinerater third graders died before their parents could rush them to a hospital, so very tragic*
Nancey	*Kinlin*	*322 E Lafayette Ave*	*This initiative = long overdue equity*
LAUREN	*SIEGEL*	*3312 Shelburne Rd*	*we need to protect our environment.*
Liz	*Hoey*	*843 N Howard St apt 1 Baltimore md 21201*	
Anbar	*Oreizi*	*9704 Treyburn Court, Ellicott City, 21043*	
Neil	*Seldman*	*3362 Tennyaon STreet, NW, Washington, DC 20015*	*These steps are needed to get Baltimore to Zero Waste and economic and environmental justice.*
Leana	*Houser*		
Katharine	*Jenike*		
Jodie	*Zisow-McClean*	*2608 Hamilton Ave*	
Monalisa	*Diallo*	*2101 Bryant avenue*	*It matters because I'm charged to leave the earth better than I found it.*
Eric	*Miller*	*4906-1 Columbia Rd.*	
Joshua	*Rogers*	*1150 Carroll St, Baltimore, 21230*	
Brian	*Dolge*	*6 Wade Ave*	*composting is a fundamental component of a zero waste system. burning or burying food waste is not only bad for the world's*

			carbon balance it is a waste of lad and pollutes the air. we need composting and waste recycling.
Naijha	*Wright-Brown*	*840 North Eutaw Street*	*Stop the burning of food waste in the BRESCO incinerator. Eliminate pollution and toxins in the air that's negatively affecting poor communities.*
Darryl	*Jurkiewicz*	*937 S. Clinton St.*	*Common sense*
Chauna	*Brocht*	*2509 Guilford Avenue 21218*	
Bethany	*Gregg*	*5748 Cross Country Blvd, Baltimore, 21209*	*I have 3 children and I care about their future. We need to address climate change NOW to save their future!*
patricia	*halle*	*808 Gorsuch Ave*	
Marie	*Murphy*	*3903 Cloverhill Rd, Baltimore, 21218*	
Jasper	*Lewis*	*789 Grape Vine Loop, Baltimore 21225*	
Cinder	*Hypki*	*2103 Bank St. Baltimore md. 21231*	*As a city we need to act swiftly to be part of the solution to the climate crisis— my # 1 concern AND simultaneously to the need for decent jobs and the training to acquire them by young people in Baltimore's most vulnerable and beleaguered neighborhoods. We must act now to put this into place. There is no time to hesitate.*
Ellen	*Barfield*	*814 Powers St, Baltimore, MD 21211-2510*	*It is obscene to burn good soil nutrients and further pollute our air.*
Justin	*Park*	*310 Birkwood Place, Baltimore, MD 21212*	
Stephen	*Thomas*		
Erin	*Barry-Dutro*	*615 Parkwyrth Ave 21218*	
Sarah	*D'Adamo*	*3549 Sweet Air Street*	
Elizabeth	*Englemann*	*4000 N Charles ST*	

Caroline	*Wayner*	*632 Saint Johns Road*	*Not only is this the right thing to do for the Earth, but being a greener city will attract more residents. Thank you for doing the right thing.*
LEE	*BOOT*	*2312 E Baltimore St*	*What we are doing is neither healthy, cost-efficient, nor sustainable. Bold action such as this is required.*
Helen	*Atkinson*	*2105 Kentucky Ave, Baltimore MD 21218*	
Meredith	*Chaiken*	*2717 Saint Paul St.*	*It's time to take responsibility for our behavior.*
Nick	*Lindow*		
Graham	*Coreil-Allen*	*3210 Auchentoroly Terrace*	
Mike	*Wissner*	*713 Newington Ave, Baltimore, 21217*	*Nobody wants to live with trash nor unemployment!*
Maria	*Smaldone*	*1912 Linden Avenue, Baltimore, MD 21217*	
Regina	*Tassone*	*724 Walker Avenue*	
Kelsi	*Loos*	*923 Essex Square*	
Angela	*Cole*	*5221 Ready Avenue Baltimore, MD 21212*	*I am a Baltimore native and understand the impacts of systematic racism and how it affects generations of black and brown people. Blight , trash and pollution affects property value , neighborhoods and most importantly the people who live there health and well being.*
Jennifer	*Goold*	*4302 Wickford Road*	*It's the only way forward for our planet! The incinerator is poisoning our city and it's people.*
Sharon	*Davlin*	*327 Overbrook Rd*	
Robin	*Marquis*	*4912 Ross rd, baltimore, MD 21214*	
Chris	*Streb*	*2081 Clipper Park Road*	
Janan	*Broadbent*	*100 Harborview Drive Baltimore 21230*	

Alexandra	*Wick*	*302 Kingston Rd*	*Protect the vulnerable in our neighborhoods!*
Matt	*Hill*	*181 Hollen Road, Baltimore, MD 21212*	*Sustainable environment is important!*
Gwen	*DuBois*	*1817 Sulgrave Ave*	*Incineration is bad for the health of Baltimoreans. Composting is the single most important way to reduce incinerator waste and turn it into something that will always have value. Here in Mt. Washington we are doing that with the help of master composted Marvin Hayes .*
Quinn	*Caralle*	*4410 Falls Road, Baltimore, MD, 21211*	
Melia	*Jannotta*	*2023 Druid Park Dr*	*Diversion from incineration is the only way. We want to breathe clean air and live in a city that is responsibly disposing of waste. This is an issue of racial and environmental justice.*
Joanna	*Merry*	*Benninghaus Rd 21212*	
Barbara	*Metz*	*5401 Loch Raven Boulevard*	*This is crucial for the health of the earth and our community !*
Gracie	*Chaney*	*16 Clinton Hill Ct, Catonsville, 21228*	*As a student, I have very little power over what my institution does; however, I do not want to be inadvertently contributing to a public health and climate crisis.*
Amanda	*Wisniewski*	*15 E Eager St 21202*	
Annie	*Mesaros*	*1606 Latrobe St Baltimore MD 21202*	*We need to keep our planet healthy to keep our people healthy! This is a justice issue.*
Michael	*Dorsey*	*12 South Conkling Street*	
Naadiya	*Hutchinson*	*299 W 31st Street, Baltimore, MD, 21211*	
Elizabeth	*Sloand*	*309 Old Trail Rd*	*We need a cleaner environment for our future and less food waste.*
Allison	*Blood*	*2818 E. Baltimore St*	
Ava	*McCormick*	*6404 north centennial place, 21061*	*I want A cleaner community.*

JULIANNE	*OHANIAN*	*1406 Eutaw Place Apt. 9*	*It makes more sense! We need to clean up our own damn mess (and so do corporations)*
Jack	*Dotzler*	*4501 N Charles St, Baltimore, MD 21210*	
Colin	*Murphy*	*640 N Morton St*	
Spencer	*Ellsworth*		*let's turn our waste into a resource!*
Katherine	*Jenkins*	*203 South Tyrone Road*	*I am a teacher and a parent and care for our children's future. I think joining voices with the younger generation for a more just and sustainable future is one of the most important things we can do right now.*
Angela	*Quamina*	*6963 Blanche Rd Baltimore, Md 21215*	
Ametisse	*Gover-Chamlou*	*1717 Bolton Street, Baltimore City, 21217*	
Matthew	*Buening*	*5401 Loch Raven Blvd., Baltimore, MD 21239*	*Because the Earth is the only home we have and I'd like to leave in better for the next generation.*
Nivi	*Mariappan*	*3801 Paul Mill Road*	*There are a lot of people whose health has been negatively impacted by too much food waste, and composting can help alleviate this issue. This is also an act that will have a lot of benefits for Baltimore in the long run*
Genee	*Smith*	*1106 Windlass Glen Road*	*Baltimore's waste problems are an environmental justice issue.*
Luke	*O'Neill*	*5629 Ringwood Drive, Halethorpe, 21227*	
Alex	*Noel*	*3206 GUILFORD AVENUE*	
Liam	*Housenbold*		
Sam	*Dawley*	*3203 N Charles St, Baltimore, MD , 21218*	*We only have 1 biosphere!*
Tabor	*Rodericques*	*1714 baldwin drive, mclean, 22101*	*It's not smart to waste*
Steven	*Solar*		

Olin	*Shipstead*		
Sya Buryn	*Kedzior*		
Victor	*Tawansy*	*4000 North Charles, Baltimore 21218*	*It's important that we reduce waste and sustain our environment.*
Gonzalo	*Percovich*	*3203 n charles Street, 21218*	
Larry	*Williams*		
Carlos	*Tenreiro-Braschi*		
cheryl	*stehlik*	*21206*	
Connor	*Caputo*		
Erica	*Peery*	*2509 Madison Ave, 1A*	*The future of our planet depends on carbon sequestration, which should be available to all.*
Stephanie	*Lee*		
Naeem	*Sbaiti*		
Diane	*Wittner*	*243 Stanmore Road*	
Hanna	*Tran*		
Pat	*Cassidy*	*2406 HALCYON AVE*	*This is essential for our city and our earth and I'm hopeful that our city can take steps like this to create necessary change!*
George	*Slade Jr*		
Myeasha	*Taylor*	*2744 north rosedale st baltimore md*	*Because food doesn't belong in the trash! Incinerators are toxic. Composting can create jobs!*
ruth	*cassilly*		
Rebekah	*Lynn*	*146 George Street*	*The climate crisis is not going away any time soon. We need to take swift and radical action to stop it. Take action now!*
Katie	*Huffling*	*2901 Shepherd St Mount Rainier, MD 2012*	
Martha	*Ruffin*	*3 Bellemore Road, Baltimore, MD 21210*	

Brendan	*Burns*	*3600 Yolando Rd 21218*	
Anastasia	*Kupstas*	*123 Station North Mews, Baltimore, MD 21202*	
Eesha	*Patne*	*1111 Park Ave, Baltimore MD 21201*	
Alison	*Cain*	*Frederick MD*	
Alexis	*Stone*		
Devonie	*Doles*	*4529 Arabia ave*	
Kristian	*Bjornard*	*735 Bay Street*	*For the health of our city and the health of our planet we need city wide composting for all*
Beverly	*Bickel*	*741 Weatherbee rd Towson 21286*	*The economic and environmental justice needs and opportunities for ALL of Baltimore's communities are urgent and enormous. Now is the time to act boldly for our shared future.*
Kathy	*N*		
Ronald	*Hernandez*	*3719 Timahoe Cir*	
Jessica	*Croteau*	*2917 N Calvert St.*	*Black people deserve to breathe clean air*
sera	*fleishman*	*2605 Guilford Ave, Baltimore, MD 21218*	
John	*Bremerman*	*121 BURNETT ST*	*Baltimore has an obligation to its citizens to eliminate the burning of trash and to utilize every available natural resource at our disposal to do so.*
KellyAnn	*Callahan*	*100 HARBORVIEW DR*	
William	*Morrison*	*33Portshio Rd Baltimore, MD 21222*	
Diana	*Emerson*	*3205 Abell Ave, Baltimore, MD 21218*	
Niloofar	*Haeri*	*230 Stony Run Lane 21210*	
Naisa	*Rahman*		
Veronica	*Wallace*		

Aditi	*Varshneya*	*616 West 184th St, New York City, 10033*	*My aunt, uncle, young cousins live in Baltimore and I want them to live in a city with a clean environment that doesn't put their health and well being into jeopardy because of polluting facilities like incinerators. I want them to grow up in a city and world that boasts climate-friendly, equitable, community-centered solutions to the environmental and social problems created by the make-take-waste that must be left behind. As a young person, I believe that it's the responsibility for cities like Baltimore to take action, show other cities that better waste systems ARE possible, and contribute to the global reduction in climate emissions we need to ensure a livable world for young people like me and elementary-aged cousins in Baltimore.*
Morgan	*Thapa*	*1408 Belt St Baltimore MD 21230*	
Carl	*Latkin*	*6062 Red Clover Lane*	*This needs to be a collective effort*
Erin	*Kosloski*		
Michael	*Degani*		
Susan	*Talbott*	*3908 N Charles Street*	*I want to help save our environment so my grandchildren will be able to thrive.*
Gregory	*Cundiff*	*8 Charles PLZ Apt 501, Baltimore, 21201*	*We're drowning in waste. It is killing the land, the air, the water, and eventually the people.*
Ellis	*Woodward*	*21211-1415*	
Caitlin	*Wellman*	*19 W Ostend St.*	*It is imperative that we move to Zero Waste to ensure a better tomorrow for our city.*
Crystal	*Barrett*	*5911 SHADY SPRING AVE*	*If we do not do it, who will?*
Elizabeth	*Tipson*		
Elizabeth	*Lewis*	*1208 Regester Ave*	*I want to leave a functioning planet for my grandchildren*
Rejjia	*Camphor*	*21216*	*ENVIRONMENTAL JUSTICE IS JUSTICE FOR ALL*

Peggy	*Meyer*		*We are destroying the planet!*
Van	*Dixon*		
katherine	*moon*	*325 W 27TH ST*	*food waste, climate change, environmental justice, local economy*
Justyna	*Nicinska*	*2219 Arden Rd*	*Composting, and having the right infrastructure to do so on a wide scale, is a critical part of reducing landfill waste, pollution, and greenhouse gases generated by incinerated food. It is time for Baltimore to transition to a zero waste system and foster greater environmental sustainability that supports our communities.*
Leah	*Kelly*	*1507 Upshire Rd. Baltimore, MD 21218*	*It's past time to stop incinerating and landfilling our waste.*
Bernadette	*Krol, RN*	*814 Chumleigh Rd*	*We need action now! It's bad enough the waste incinerator has been kept in business. It's time to show you're behind efforts to change the trajectory towards more sustainable living!*
Ally	*Bartell*	*3900 N Chalres St, Baltimore, MD 21218*	*This a public health and environmental issue. This is about survival*
Sharon	*Krumm*	*100 Harborview Dr, Unit 314 Baltimore, MD 21230*	*This is essential to the health and well being of all Baltimore citizens!*
Lois	*Hybl*	*4107 Westview Rd, Baltimore 21218*	*I want to reduce pollution for south Baltimore neighborhoods and reduce greenhouse gases.*
Hannah	*Lin*	*1321 North Calvert Street*	
Emil	*Volcheck*	*3040 Guilford Ave*	*I support the Zero Waste Fair Development Plan for Baltimore, along with the whole Baltimore Ethical Society. Composting infrastructure is a key step toward achieving zero waste for our city.*

Kimberly	*Sheridan*	*1216 West Cross St.*	*I live within a mile of the incinerator. My lungs know when the filtration system isn't working properly. Especially on those still muggy summer days when the whole atmosphere oozes an aroma like rancid iron. Baltimoreans wrack up 55 million dollars in excess emergency asthma treatment because of this incinerator. I'm an asthmatic myself. I suppose 55 million dollars adds to the GDP. But being able to breathe a steady stream of fresh air would more than make up for that in greater productivity and job opportunities for city farming. I'd like to see Bresco gone before I die. Sincerely Kimberly Sheridan*
Casey	*Levitt*	*310 E University Parkway Baltimore 21218*	
Carol	*Fordonski*	*1612 Ebbotts Place*	*We all need to do these things!*
Ayla	*Frost*	*310 East University Parkway*	
Jackie	*Rittenhouse*	*310 E University Parkway, Baltimore 21218*	
Ciara	*Henry*		
Maddie	*Wells*	*Baltimore 21218*	
Hugh	*Taft-Morales*	*10 Pine Ave. Takoma Park, MD 20912*	
Vilde	*Ulset*	*21 W Preston St apt 102*	
Jacob	*Hamer*	*3925 Beech Ave #305, Baltimore, 21211*	
Oz	*Amram*	*3514 Beech Ave.*	
Lauren	*Nowicki*		
Christina	*Lindberg*	*4129 Roland Ave*	
Becky	*Slogeris*	*131 W North Ave*	
Thomas	*Gardner*		
Quinton	*Batts*	*2024 Jefferson St*	

Cameron	*Morgan*	*4429 Harcourt Rd, Baltimore, MD 21214*	*It matters because we need to be able to pour back into our communities while also holding what we owe to each other as a city. Curtis Bay, and many other areas, already see the negative health effects which incinerating trash carries — higher asthma rates; more generalized breathing issues, like poor air quality for elders. Why not create healthier soil and waste management for Baltimore communities while limiting the pollution that comes with food waste in trash streams? Also — if I can be so frank — what it currently marketed as compost by DPW and the Department of Planning goes to the county, not Baltimore. What is currently being done isn't supporting us, even though it's marketed by an attempt to start compost streams. Do better.*
Caleb	*DeMario*	*3204 Rosekemp Ave*	
Lee	*Davis*	*7 S Wolfe St Apt 401*	*This is an important public health, climate, and racial justice issue for the city.*
Vidisha	*Agarwalla*	*1111 park avenue, Apt 605*	
Baltimore Peoples	*Climate Movement*	*Baltimore, MD, 21217*	
Sydney	*Lewis*		
Meg	*Berkobien*	*2703 Parkwood Avenue*	
Matthew	*McGough*	*100 W University Parkway, Baltimore, MD, 21210*	
Caroline	*Storen*	*3301 St Paul Street Apt# 801C, Baltimore. 21218*	
Joseph	*Castagno*	*30 Tanglewood Lane Basking Ridge 07920*	*I go to college in Baltimore so I want the waste system to be improved.*
Jonik	*Surprenant*	*15718 allanwood drive silver spring md 20906*	*I go to college in Baltimore and I would like the waste system to have improved infrastructure.*
Emerson	*Davis*		

Hannah	*Fu*	*3339 N Charles street, Baltimore, 21218*	*By the developing the infrastructure, it can make a huge difference in Baltimore and set an example.*
Michelle	*Liu*	*3339 N Charles St, Baltimore, 21218*	
Eric	*Ji*	*52 Stoneyside Ln St Louis 63132*	*I, as a student in the Baltimore area, have an obligation to support any and all initiatives that work to further the economic and social upstanding of the region.*
Chase	*Lahr*	*12200 Cotswold Lane, Knoxville TN, 37922*	
Jay	*Heyman n*	*3116 Pacific Avenue, Cannon Beach, Oregon*	*I care about sustainability!*
Steven	*Rua*	*3022 Guilford Avenue*	*Because we want to see clean water*
Emma	*McElrath*		*The earth is dying*
Richard	*Soucy*	*20 Bonbon Court*	*People are hurting from the incinerator*
Katherin e	*Overbey*	*3900 N Charles St Baltimore MD 21218*	
Nancy	*Poznak*	*2310 Bright Leaf Way, Baltimore, MD 21209*	
Alex	*Welna*	*7127 Fairfax Rd*	
Myeasha	*Taylor*	*2744 N. Rosedale St*	
Nicole	*King*	*601 N Eutaw st*	*We need to all work towards zero waste to make Baltimore a more sustainable city … climate change is not going away. We need strong and decisive action.*
Judd	*Crane*	*931 S Linwood Avenue, Baltimore, 21224*	
Sam	*Lynch*	*108 E Preston St*	
Sean	*Jennings*		
Nicole	*Devlin*	*1615 belt st Baltimore, MD 21230*	*We need to work as a community to create sustainable infrastructure which helps reduce disparities within Baltimore City and Maryland in general*

Pickett	*Slater Harrington*	*5703 Cross Country Blvd Baltimore, MD 21209*	*Greener, cleaner, more prosperous city*
Nancy	*Poznak*	*2310 Bright Leaf Way, Baltimore. MD 21209*	*We must do everything possible to be envvironmentally-responsible.*
Karen	*Elliott*	*6106 Old Harford Rd., Baltimore, 21214*	
Grace	*Ware*	*609 S KENWOOD AVE*	
Lee	*Boot*	*2312 E Baltimore St*	*Great idea*
Alan	*Shapiro*	*1505 Eastern Ave. 21231*	*anything that help counter the enormous waste of our style of living needs to be done*
monique	*stins*	*503 Overbrook rd*	*I care about the environment*
Andy	*Collins*	*804 Starbit Ct, Towson, MD, 21286*	*I want my grandchildren to have a normal childhood like I did.*
Emma	*Cenicacelaya*	*402 David Court, Bel Air, 21015*	
Lucia	*Baran*		
Jason	*Lin*	*3339 N Charles St, Baltimore, MD 21218*	
Ellen E	*Barfield*	*814 Powers St*	
Nick	*Lindow*	*4138 Roland Ave*	*for me and the next seven generations to have the resources to survive and thrive*
Mansha	*Kapur*	*116 W University Pkwy*	
doug	*fuller*	*21217*	*people suffer greatly from the air pollution of incineration, and climate change is getting worse, municipal compost service has been in place successfully for many years and is a great service to humans and the environment as well as reducing pests and improper disposal of garbage in our most divested neighborhoods deeply affecting health of both bodys and minds of all who must face the stream of junk and consumerist waste created by companies who only think of profits for shareholders not the well being of others. Politicians need to gather the political will to stand with*

			people not corporate interests, it's well past time to be on the right side of history.
Erin	*Baeder*		
Caitlin	*Goldblatt*	*1210 Saint Paul St, 3A, Baltimore, MD 21202*	
Samuel	*Winans*	*7 Sparrow Hill ct*	*The residents of South Baltimore have been exploited, had their communities poisoned and destroyed, and suffered the consequences of government incompetence for far too long. It is time for the mayor and city government to act in the interest of the cities residents instead of the corporation in the industrial district.*
Sharyn	*Blum*	*440 E Oliver St, Baltimore, 21202*	*We're in a rapidly escalating climate crisis. Not only is it important to reverse that, it's beyond foolishness to let a useful resource end up in landfills rather than cycling back into beneficial agriculture.*
Jennifer	*Cookus*	*2005 E Lombard St Baltimore 21231*	
Eva	*Elbert*		*Toxic pollution from incinerators has caused millions of dollars of health damages in Baltimore's underprivileged areas when so much of this waste could be redirected. Using food waste for compost would provide many more jobs than landfills, and could be used in fresh soil to help local farmers grow crops and to plant grasses that remove CO2 from the air. This legislation would help improve racial equity, public health, agriculture, and the economy in Baltimore.*
Caitie	*Curtis*	*E 27th st, Baltimore, 21218*	
Mia	*Morrison*	*1502 McHenry Street Baltimore, MD 21223*	*I want to systemically reduce waste and repurpose that waste into helpful resources!!*
India	*Jones*	*407 S Gilmor St, Baltimore, 21223*	*I am promoting sustainability, starting in South Baltimore*

Nsedu	*Obot Witherspoon*	*2455 Tuckahoe Court*	*As a Maryland resident for over 2 decades and a public health leader that leads the Children's Environmental Health Network, I support any and all efforts to stop burning and burying food waste and organics in Black and poor communities. We know this practice is harmful to residents and continues to present a serious injustice situation.*
alice	*ferrari*	*1301 cambria st, baltimore, md 21225*	*it's my home and i care how the people in charge treat it*
Lucy	*Zhao*		
Lisa	*Avila*	*1604 cereal st,Baltimore, MD 21226*	*We have to stop putting public money to projects that make us sick.*
Sharon	*Brown*	*1612 Cereal St, Baltimore, MD 21226*	*Please listen to what residents have been saying for years and make this the end of giving money for burning trash.*
Bivek	*Povdyaz*	*2600 Madison*	
Pamela	*Glimore*	*1621 Filbert Street, Baltimore, MD 21226*	
Holly	*Loydd*	*1627 Locust St, Baltimore, MD 21226*	
David	*Mazan*	*1619 Cherry St, Baltimore, MD 21226*	
Faye	*wilsonburg*	*1603 Cherry St,Baltimore,MD 21226*	*Youth in our community already spent 5 years stopping a new incinerator from making our air even worse…why are we still giving money to incinerators and calling it clean? It's not!*
Liz	*Ottey*	*1603 Cereal St,Baltimore,MD 21226*	*Our community has been used as a dumping ground and a place for incinerators to pollute for way too long. We deserve better.*
Karen	*Vanstory*	*1611 Cereal St, Baltimore, MD 21226*	*Our money shouldn't be wasted on burning trash and calling it green.*
Chantelle	*Wills*	*4402 Fairhaven ave, Baltimore, MD 21226*	

Donna	***Chappell***	***1425 Filbert Street, Baltimore, MD 21226***	
Nathaniel	***Russell***	***4408 Fairhaven ave, Baltimore, MD 21226***	***We need clean air now***

Please support SB590 and stop sending Maryland's renewable energy money to facilities that emit such enormous amounts of greenhouse gasses. Thank you.

Sincerely,

Shashawnda Campbell, Environmental Justice Director
Shashawnda Campbell
Greg Sawtell, Zero Waste Communities Director
Greg Sawtell
Dr. Meleny Thomas, Executive Director
Meleny Thomas

sb590rps cleanup.pdf
Uploaded by: Gwen DuBois
Position: FAV

SB0590
Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)
Education, Energy, and the Environment
February 28, 2023
FAVORABLE (SUPPORT)

Chesapeake Physicians for Social Responsibility supports of SB0590 because it would stop subsidizing polluting energy sources that are currently subsidized through the Renewable Portfolio Standards (RPS) and that are making Marylanders sick.
SB0590 alters the definitions of "qualifying biomass", "thermal biomass system", and "Tier 1 renewable source" for purposes of excluding energy derived from certain forest-related resources, animal manure, waste, and refuse and gas produced from the anaerobic decomposition of animal waste or poultry waste from being eligible for inclusion in the renewable energy portfolio standard.

Chesapeake Physicians for Social Responsibility (CPSR) is statewide evidenced-based, organization of over 900 physicians. other health professionals and supporters, that addresses the existential public health threats: nuclear weapons, the climate crisis and the issues of pollution and toxics' effect on health as seen through the intersectional lens of environmental, social and racial justice. As an organization founded by physicians, we understand that prevention is far superior to treatment in reducing costs; death, illness, injury, and suffering.

Incineration must come out of the RPS portfolio and should never have been there in the first place. Waste-to-energy incineration is more polluting and produces more C02 per unit of energy than even coal fire power plants.[1] Why should ratepayers pay for an inefficient, climate forcing, health compromising incineration just because it is called "renewable."

[1] https://web.archive.org/web/20131217055632/http://www.environmentalintegrity.org/documents/FINALWTEINCINERATORREPORT-101111.pdf

Baltimore's BRESCO municipal waste incinerator was identified as the single largest industrial polluter in Baltimore in 2017.[2] It emits mercury, dioxin, nitrogen oxides and is an important source of the fine and ultrafine particulate matter (PM2.5). One year's direct and indirect health costs from PM2.5 in Maryland was estimated to be nearly $22 million.[3] In 2016, it was the 5th largest stationary source of nitrogen oxides (NOx) emissions in the State.[4] Incinerators, including BRESC0 release several times more mercury per unit energy as Maryland's largest coal fire power plants.[5]

There are other dirty energy sources that should come out of the RPS and are excluded with this bill which would end ratepayer subsidy under RPS for health-harming pollutants from dirty energy sources. For example, biomass generating plants emit high levels of particulate matter (PM), nitrogen oxides (NOX), carbon monoxide (CO), sulfur dioxide (SO2), lead, mercury, and other hazardous air pollutants.[6]

One form of biomass generation is anaerobic decomposition which generates methane a more potent greenhouse gas emitter than Co2. [7] It makes no sense to call any source of energy clean that produces significant greenhouse gases if we are trying to mitigate the climate crisis with the RPS.

Poultry waste to energy emits pollutants that include: dioxins, nitrogen oxides, and sulfur dioxide.[8]

Though we may be reducing C02 approximately 0.8% with the current RPS, how well are we reducing methane and we are not reducing air pollutants such as nitrogen oxides and sulfur dioxide.[9]

HEALTH EFFECTS of POLLUTANTS that are emitted from waste-to-energy sources that do not belong in the RPS

1) PM2.5: Hundreds of articles" have established an association between PM2.5 and poor health outcomes, including asthma, ischemic heart disease, lung cancer and all-cause mortality especially in urban populations.[10] These very small particles combine with carcinogenic chemicals and heavy metals and can deliver them, once inhaled, deep into the lungs and cross into the bloodstream where they are carried around the body and cause damage. Heavy metals attached to fine particulate matter have been found to travel up to the frontal lobe in animals and

[2] https://www.baltimoresun.com/news/environment/bs-md-trash-incineration-20171107-story.html
[3] https://www.cbf.org/document-library/cbf-reports/thurston-wheelabrator-health-impacts-2017.pdf
[4] https://www.who.int/water_sanitation_health/medicalwaste/en/smincinerators4.pdf
[5] https://web.archive.org/web/20131217055632/http:/www.environmentalintegrity.org/documents/FINALWTEINCINERATORREPORT-101111.pdf
[6] https://peer.org/wp-content/uploads/2021/01/1_28_21-Maryland-Dirty-Energy-Report-Final.pdf
[7] https://www.epa.gov/anaerobic-digestion/basic-information-about-anaerobic-digestion-ad

[8] https://journals-sagepub-com.proxy1.library.jhu.edu/doi/abs/10.2190/NS.21.1.g
[9] https://dnr.maryland.gov/pprp/Documents/FinalRPSReportDecember2019.pdf
[10] https://www.nejm.org/doi/full/10.1056/NEJMe1706865

raise the possibility that they may be a factor in degenerative brain diseases in humans like Parkinson's and Alzheimer's disease.[11] Recent studies have found a positive association between historic pm2.5 levels and mortality from Covid-19.[12]

2)Nitrogen Oxides (NOX): Increase in nitrogen oxide levels are associated with worsening of asthma, emergency room visits and hospitalization. Nitrogen oxide is an important component of ozone. Ozone pollution can put active children who play outside at increased risk of developing asthma.[13] This is important in Baltimore where we have more than double the emergency room and hospitalization rates for asthma as the rest of Maryland.[14] Reducing NOX emissions is an important way to reduce ozone pollution. Both ozone and nitrogen oxide have been associated with increased mortality.[15] Nitrogen dioxide and fine and very fine particulate matter (PM2.5) have been associated with reduced lung function in children and most importantly with improvement in lung function when levels of these two pollutants are reduced. [16]

3)DIOXIN: Dioxin is created in the smokestack and is one of the most notorious families of toxic substances.[17] It has been designated by the World Health Organization as a known human carcinogen: capable of causing cancer. [18] It is considered one of the "dirty dozen" persistent organic pollutants because of its long half-life. It accumulates in the environment where animals graze, it gets concentrated up the food chain where we are on top. It is concentrated in our body fat as we eat: meat, fish and dairy products. In addition to being a carcinogen, it is linked to diseases of the immune system, endocrine system, nervous system and reproductive system.[19]

4)SULFUR DIOXIDE: Children exposed to S02 pollution may have breathing problems as they get older, make more emergency room visits for asthma treatment, and may get more respiratory illnesses than other children.[20] It contributes to particulate matter pollution which of course has very serious health effects.[21]

5)MERCURY: It gets into streams and lakes and is concentrated in fish which we then eat. Mercury is toxic to the developing brain of fetuses, infants and children and is associated with abnormalities in cognition, thinking, memory, and language that can be severe if exposure is significant.[22]

6)LEAD: Lead is associated with hypertension and cardiovascular disease in adults and in children in causes neurological deficits including loss of cognitive function, reduced IQ,

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[11] https://www.jstor.org/stable/j.ctt5vjr8g https://www.cbf.org/document-library/cbf-reports/thurston-wheelabrator-health-impacts-2017.pdf
[12] https://projects.iq.harvard.edu/covid-pm/home
[13] https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(02)07597-9/fulltext
[14] https://www.environmentalintegrity.org/wp-content/uploads/2017/12/Baltimore-Asthma.pdf
[15] https://www.hsph.harvard.edu/news/press-releases/permissible-concentrations-air-pollution-mortality-risk/
[16] https://www.nejm.org/doi/full/10.1056/NEJMoa1414123
[17] https://phys.org/news/2014-09-unforeseen-dioxin-formation-incineration.html
[18] https://www.who.int/ipcs/assessment/public_health/dioxins/en/
[19] https://www.who.int/water_sanitation_health/medicalwaste/en/smincinerators4.pdf (page 28)
[20] https://www.atsdr.cdc.gov/toxfaqs/tfacts116.pdf
[21] https://www.epa.gov/so2-pollution/sulfur-dioxide-basics
[22] https://docs.house.gov/meetings/IF/IF02/20190521/109556/HHRG-116-IF02-Wstate-LandriganMDMScP-20190521.pdf

attention deficit, anti-social behavior. There is no safe level of lead and the damage can be irreversible.[23]

7)PFAS: PFAS in the blood of nearly the entire population in developed countries, with health effects reported globally". It crosses the placenta and is found in breast milk. It is very slow to degrade and is considered a "forever chemical" for that reason. High certainty health effects include: kidney cancer, liver damage, alteration in thyroid hormone levels, high cholesterol (increase serum total cholesterol and the fraction we usually associate with heart disease, low birth weight, reduced immune response including reduced response to vaccines after exposure in utero.[24]

These are just a few of the notorious elements of the toxic stew emitted in the air from waste-to-energy sources considered Tier 1 by the RPS but also from the other sources, biogas produced from the anaerobic decomposition of animal waste or poultry.

Chesapeake Physicians for Social Responsibility supports SB0590, removing poultry-to-waste sources of energy in addition to removing waste-to-energy incineration from the Maryland RPS. We will save ratepayers money and more importantly we will protect their health and the environment.

Gwen L. DuBois MD, MPH
President Chesapeake Physicians for Social Responsibility
gdubois@jhsph.edu

[23] http://ugspace.ug.edu.gh/bitstream/handle/123456789/31420/The Lancet Commission on pollution and health.pdf?sequence=1
[24] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7906952/

BBP testimony supporting SB590-1.pdf
Uploaded by: Harry MacGillis
Position: FAV

Testimony Supporting SB590
Senate Education, Energy, and the Environment Committee
February 28, 2023

Position: SUPPORT

Dear Chair Feldman and Members of the Committee,

As young people living in Baltimore City who are advocating for ourselves and our peers to have a better environmental future, Baltimore Beyond Plastic is submitting this letter to express our strong support of SB590, the Reclaim Renewable Energy Act. This bill will make sure that subsidies for renewable energy in our state are only going to projects that support a more livable world by removing three types of energy from Maryland's Renewable Portfolio Standards: trash incineration, woody biomass, and factory farm methane gas. All three of these forms of energy generation pollute the environment, damage public health, and contribute to climate change. It is not acceptable that money coming from our families' pockets is going to support these harmful industries under current law.

Baltimore Beyond Plastic was formed in 2016 to coordinate youth advocacy efforts around environmental problems facing Baltimore City, particularly those caused by waste and trash and those that impact public health. Trash incineration is a particularly important issue for us because of the invisible harms that it causes. In Baltimore City, our rates of diseases like cancer and asthma are increased by the fact that we are breathing in the mercury and dioxins released by the incineration of not just our own trash, but that of surrounding counties which gets trucked in to be burned here. According to a study by the Chesapeake Bay Foundation, emissions from Baltimore's trash incinerator cause more than $55 million in adverse health impacts annually. All of that, and our families get to pay for the subsidies that let it continue!

Trash is only a "renewable" source of energy if we believe that we're always going to be producing so much waste. Instead, we need to move away from disposability and towards a future where we minimize waste in the first place and deal with any waste that we do generate responsibly. For example, we can use compostable products instead of plastic ones, create jobs in composting, and then use that compost to generate new, healthy soil to grow food in. Doesn't that sound better than poisoning our air?

One of the members of our leadership team, Aniya Branch (Junior, Western High School), shared this personal reflection for your consideration – "Growing up in a poor predominantly black community I was unaware of trash incinerators. During elementary school, all my peers had asthma or health conditions and I saw a pattern: the people who live in low-income communities tend to have asthma or cancer. I was never educated on trash incinerators and never heard the terms until about a year from now. I have been living in Baltimore for almost 18 years now and just heard about the dangers and effects of it. This needs to end, not only for my generation but for the future generation too. We need to stop before the problem

becomes more than us. This is not only for me but for you and your future grandkids and their children too."

Please pass the Reclaim Renewable Energy Act so that our funds can support new wind and solar power projects instead of incentivizing industries that are literally choking us. We are going to inherit this world – we're relying on you to make sure it's still livable when we do!

Sincerely,

The 2022-2023 Baltimore Beyond Plastic Team, representing students from Baltimore Polytechnic Institute, Bard High School Early College, and Western High School

CCAN Testimony for Reclaim Renewables.pdf
Uploaded by: Jamie DeMarco
Position: FAV

Testimony in Support of the Reclaim Renewables Act
SB 0590
Education, Energy, and the Environment
2/28/2023

Jamie DeMarco
Chesapeake Climate Action Network Action Fund

On behalf of the Chesapeake Climate Action Network Action Fund, I urge a favorable report on SB 0590, the Reclaim Renewables Act.

Wind and solar coupled with batteries are now the cheapest way to create electricity. The costs of wind, solar, and batteries have been falling steadily for decades, and now, with the investments in these technologies from the Inflation Reduction Act, they are by far the most cost effective way to generate electricity 24/7/365. A recent report found that it would lower energy costs if the United States replaced 99% of coal plants with wind and solar. That's why 74% of all new energy built in 2022 was wind, solar, or batteries, a percentage that has been shooting up every year. Globally, solar electricity is expected to have more installed capacity than any other energy source just four years from now. We are seeing the effects here in Maryland where the Dickerson Coal Plant closed and is being replaced, megawatt for megawatt, with solar coupled with batteries.

This is good news because it means we power our society with 100% clean, renewable electricity and save money in the process. It is also good news because it means there is no longer any reason to subsidize dirty sources of energy through Maryland's Renewable Portfolio Standard.

According to the US Department of Energy, waste to energy costs consumers between 8 and 11 cents per kilowatt hour. Today, DOE estimates the cost of utility scale solar energy at 6 cents per kilowatt hour, and that's not even accounting for solar cost reductions achieved by the Inflation Reduction Act.

Waste to energy and biomass facilities have always been harmful to the people who live near and around them. Life's have been altered by asthma, or lost to cancer because of the dioxins and other toxic co-combustants emitted at these facilities and breathed in by people. Now, subsidizing these facilities as part of Maryland's RPS does the additional harm of ehelping to raise rates on all Marylanders.

It is time to pass the Reclaim Renewables Act to take burning trash, burning forests, and poultry litter out of Maryland's Renewable Portfolio Standard.

CONTACT
Jamie DeMarco
jamie@chesapeakeclimate.org, 443-845-5601

SB0590 - 54 organization sign on - FAV.pdf
Uploaded by: Jennifer Kunze
Position: FAV

Testimony Supporting SB590
Senate Education, Energy, and the Environment Committee
February 28, 2023

Position: SUPPORT

Dear Chair Feldman and Members of the Committee,

The undersigned **54 organizations** urge you to support the Reclaim Renewable Energy Act (SB590) to eliminate three problematic polluters from Maryland's Renewable Portfolio Standard (RPS): trash incineration, factory farm methane, and woody biomass. This legislation would make sure that Maryland ratepayers are getting what they're paying for: renewable energy dollars going to support actual renewable energy.

Since 2008, Maryland ratepayers have spent over $200 million on Renewable Energy Credits (RECs) from dirty sources misclassified as "renewable." That money should have been supporting the development of new wind and solar power instead of being thrown away to profit polluters.

Trash incineration was added to Tier 1 of the RPS in 2011. Before then, it had been in Tier 2, designed to sunset by 2019. In the original design of the RPS, trash incineration would no longer be eligible for subsidies by 2023. Incinerating trash creates greenhouse gas emissions as well as harmful local air pollution, and disincentivizes the better alternatives for handling our trash: reducing, reusing, recycling, and composting. Our communities are working to move forward with those better alternatives, and it's time for the state to stop holding us back. Now, while we're building the better infrastructure we need, is the time to start subsidizing the things we want and stop subsidizing the things we don't.

Factory farm methane gas, otherwise known as anaerobic digestion or "biogas," produces methane. No matter the source, methane is methane. Whether drilled out of the ground or manufactured from waste, methane produces CO2 when burned for energy. Methane also leaks, and when it does, it is an even more potent greenhouse gas than CO2. As with trash incineration, subsidizing factory farm waste management with "renewable" energy subsidies skews the markets in favor of more pollution. Digesters would not solve nutrient runoff problems from farm waste; they would exacerbate it. There are no such facilities in Maryland now, but developers are proposing to build them across the Delmarva region. Now is the time to take this problem out of the RPS.

Maryland's **woody biomass** subsidies mostly go to out-of-state sawmills and paper mills burning their own products to power their own operations. These facilities harm the health of nearby communities, and harm the climate. A recent Harvard School of Public Health Study found that biomass and wood have the fastest-growing share of early deaths in the major energy-consuming sectors; burning wood for electricity produces as much or more pollution than fossil fuels, including coal. Let's stop wasting our "renewable energy" money on these out-of-state facilities.

Two years ago, the legislature wisely eliminated black liquor, a polluting paper mill byproduct, from the RPS. That action freed up the money that was being wasted to support real renewable energy instead. For all of the good reasons the legislature eliminated black liquor from the RPS, we urge you to pass the Reclaim Renewable Energy Act (SB590) in 2023.

Sincerely,

Mid-Atlantic Justice Coalition

Clean Water Action, Emily Ranson, Maryland Director

Food and Water Watch, Jorge Aguilar, Southern Region Director

South Baltimore Community Land Trust, Shashawnda Campbell, Director of Environmental Justice Communities

Baltimore City Council District 10, Phylicia Porter, Councilwoman for Baltimore's Tenth District

Zero Waste Montgomery County, Amy Maron, Co-Founder

Sentinels of Eastern Shore Health, Michael Payan, Co-founder

NAACP Maryland State Conference, Staci Hartwell, Chair, Environmental and Climate Justice Committee

League of Conservation Voters, Kristen Harbeson, Political Director

Sugarloaf Citizens Association, Steven Findlay, President

1199SEIU United Healthcare Workers East, Brige Dumais, Political Coordinator

Maryland Catholics for Our Common Home, Dr James S Cleghorn, Organizer

Mountain Maryland Movement, Frostburg, MD, Annie Bristow, Convener

Progressive Maryland, SirJames Weaver , Environmental Justice Organizer

Baltimore-Washington Conference of the United Methodist Church Creation Care Team, Liz Feighner, Creation Care Team Member

Maryland Latinos Unidos, Gabriela D Lemus, Executive Director

Waterkeepers Chesapeake, Robin Broder, Acting Executive Director

Centro de Apoyo Familiar, Walkiria Pool, President

Beyond Extreme Energy, Andrew Hinz, Member

Baltimore Phil Berrigan Memorial Chapter Veterans For Peace, Ellen Barfield, Co-Founder and Chapter Coordinator

Indivisible Howard County, Peter Alexander, Member, Climate Action Team

Locust Point Community Garden, Dave Arndt, Director

Envision Frederick County, Karen Cannon, Executive Director

Echotopia LLC, Diane Wittner, Principal

Baltimore Jewish Council, Abby Snyder, Director of Government Relations

Sustainable Hyattsville, Greg Smith, Board Member

Environmental Integrity Project, Courtney Bernhardt, Director of Research

Blue Water Baltimore, Taylor Smith-Hams, Advocacy & Outreach Senior Manager

Unitarian Universalist Legislative Ministry of Maryland, Phil Webster, Lead Advocate, Climate Change

Cedar Lane Environmental Justice Ministry, Lee McNair, Member

Chesapeake Climate Action Network, Jamie DeMarco, Maryland Director

Sunrise Movement Baltimore, Anne Wilson, Hub coordinator

Safe Healthy Playing Fields Inc, Diana Conway, President

Potomac Riverkeeper Network, Betsy Nicholas, Vice President of Programs

Climate Reality Greater Maryland, Frances Stewart, Chapter Chair

Elders Climate Action Maryland, Frances Stewart, Chapter Co-leader

National Aquarium, Ryan Fredriksson, VP, Government Affairs

Environmental Justice Ministry, Cedar Lane Unitarian Universalist Church, Nanci Wilkinson, EJM Team

Gunpowder Riverkeeper, Theaux M. Le Gardeur, Gunpowder Riverkeeper

Maryland PIRG, Emily Scarr, Director

Our Revolution Maryland, Hal Ginsberg, State Organizer

HoCo Climate Action, Liz Feighner, Steering Committee

Doctors for Camp Closure, Kate Sugarman, Maryland Director

Maryland Legislative Coalition Climate Justice Wing, Laurie McGilvray, Co-Chair

Baltimore 350, David J Neun, Founder

Sunrise Movement Frederick, Davin Faris, Hub Coordinator

Climate Communications Coalition, Sonia Demiray, Co-founder

Indivisible Howard County, Peter Alexander, Member, Climate Action Team

Clean Air Baltimore Coalition, Stephanie Compton, Baltimore Organizer

Energy Justice Network, Mike Ewall, Executive Director

DoTheMostGood, Olivia Bartlett, DTMG Maryland Team

Bethesda Green, Jordan Lee, Communications Associate

Biodiversity for a Livable Climate, Philip Bogdonoff, President, Board of Directors; Director, Washington DC Chapter

Maryland Legislative Coalition, Cecilia Plante, Co-Chair

SB0590 - Clean Water Action - FAV.pdf
Uploaded by: Jennifer Kunze
Position: FAV

Testimony Supporting SB0590
Senate Education, Energy, and the Environment Committee
February 28, 2022

Position: SUPPORT

Dear Chair and Members of the Committee,

Clean Water Action urges a favorable report on SB590, the Reclaim Renewable Energy Act. This legislation eliminates trash incineration, factory farm methane, and woody biomass from Tier 1 of the Renewable Portfolio Standard. Together, the ten facilities that are currently subsidized within these three categories take up about one tenth of MD's RPS; in 2020, they profited $17 million from MD's RPS. Every year this legislation does not pass, $17 million is wasted on polluters instead of supporting real renewable energy. If we set Maryland on a path to 100% "renewable" energy before fixing this, the losses will be even worse.

The preamble of the legislation that created the RPS in 2004 said that it was created because the benefits of renewable energy include "long-term decreased emissions" and "a healthier environment." These three energy sources do not deliver on this problem: they increase net emissions and emit pollutants that create a less healthy environment for communities in Maryland and across our regional grid. The passage of SB590 will mean that the subsidies ratepayers are currently contributing to the ten facilities in the trash incineration, factory farm methane, and woody biomass categories will be redirected toward the remaining Tier 1 energy sources: things that actually deliver on the RPS's promise to develop renewable energy, decrease long-term emissions, and help create a healthier environment for Maryland communities.

Because of our work to support communities across Maryland that have fought or are fighting against trash incinerators and to develop Zero Waste infrastructure like compost facilities, we would like to bring the committee's attention to reasons why trash is not a renewable resource and why incinerating or manufacturing fuel from trash is not renewable energy and should not be included in the Renewable Portfolio Standard. In parallel, many of the same concerns translate directly to the issue of producing energy from factory farm waste. Using energy subsidies within the waste management sector tends to favor the options that pollute more over the options that pollute less. In order to decrease emissions in the long term, the state of Maryland must stop subsidizing the solid waste management options we do not want more of, so that the better alternatives can compete fairly and thrive.

1. **RPS subsidies for trash incineration were originally intended to sunset in 2019.**

In 2004, Maryland passed legislation to create our Renewable Portfolio Standard. When the legislation creating Maryland's Renewable Portfolio Standard passed in 2004, trash incineration was included as a Tier 1 energy provider. As a tier two energy provider, these subsidies were

supposed to stay stagnant at 2.5% of the market with an eventual phase out in 2019 - a recognition that trash incineration is not as desirable or valuable as truly renewable energy like wind and solar power. However, in 2011, the incinerator industry mounted an intense effort to move trash incineration to Tier 1 as two new proposed incinerators were on the horizon in Maryland: one in Frederick serving Frederick and Carroll Counties, and a second one in South Baltimore. The two proposed incinerators were ultimately rejected by the communities they targeted, due to the high pollution levels and high financial burden the incinerators would have brought. However, trash incineration remained in the RPS as a legacy of those failed projects, in the more highly subsidized, permanent Tier 1 category. In the original design of the RPS, subsidies for trash incineration would have phased out before 2023.

2. **The trash incinerators currently receiving RPS subsidies were built and operated before the RPS was created.**

Two Maryland incinerators currently receive RPS subsidies, and both were built and operated well before the RPS was created and they became eligible for subsidies, either in Tier 1 or Tier 2. Baltimore City's BRESCO incinerator was built in 1985, and Montgomery County's incinerator at Dickerson was built in 1995. Both operated for many years before the RPS was created and they became eligible for RPS subsidies, so removing the subsidies is not a bait and switch on the part of the state - both facilities were built to be profitable without subsidies. These incinerators can operate without Maryland's RPS subsidies and will still be allowed to sell their energy and to charge for burning trash. All this legislation does it stop giving them the extra subsidy of the Renewable Energy Credits, which they did not have when they were built, and in the original design of the RPS program were not destined to have now.

3. **Subsidies for trash incineration have not created new Maryland jobs, while subsidies for truly renewable energy have created thousands of Maryland jobs.**

Since no new trash incinerators have been built in Maryland since the Renewable Portfolio Standard was created - thanks to local opposition to new facilities based on the climate change and local air quality impacts of the incinerators that were proposed, as well as the enormous costs that would have been imposed on the counties - the subsidies given to trash incineration have not created new jobs for Maryland residents, since the jobs at Maryland's incinerators existed before the RPS was created.

In contrast, the truly renewable energy that will receive more subsidies when SB590 passes has created many new jobs for Maryland residents since the RPS was created. RPS subsidies for offshore wind alone - let alone the other truly renewable sources of energy - have already created thousands of jobs in Maryland. According to the Maryland Energy Administration, "Maryland's total offshore wind market (Round 1 and Round 2) stands at 2,022.5 MW which should provide enough electricity to power about 600,000 average homes. These projects are estimated to create more than 12,000 direct full time equivalent (FTE) jobs during the development and construction

phase and more than 3,000 direct FTE jobs during the 20 - 30 year operations and maintenance phase. These projects will support Maryland's growing offshore wind supply chain and result in at least $1.5 Billion of in-state expenditures including investments of $40 million for port infrastructure, $76 million for steel fabrication, $150 million for monopile foundation manufacturing, $140 million for subsea cable manufacturing, and $100+ million for a turbine tower manufacturing. Both project developers have committed to small, minority, woman, and veteran owned business participation goals of 15% (US Wind) and 29 % (Ørsted) during project development." The RECs that represent truly renewable, emissions-free energy create vastly more jobs than exist in incineration, and the Maryland RECs currently subsidizing trash incineration should be redirected toward expanding these energy sectors even further.

Although RPS subsidies cannot go directly toward more environmentally friendly methods of waste disposal that do not create energy, it is noteworthy that those methods are also better job creators than trash incineration is. According to the Institute for Local Self-Reliance, per ton of waste processed in Maryland, composting already "employs two times more workers than landfilling, and four times more workers than incineration. On a per-capital-investment basis, for every $10 million invested, composting facilities in Maryland support twice as many jobs as landfills and 17 more jobs than incinerators." A similar study projected that within three years of increased recycling rates, "Baltimore could have 500 new direct jobs in this sector of the city's economy;" overall, recycling and composting yield five to ten times more jobs than trash incineration. Likewise, for every 10,000 tons of materials that are managed through reuse programs, 75 to 250 jobs are created. When Maryland transitions to more environmentally-friendly methods of waste disposal, more jobs will be created.

4. **Trash incineration harms the climate, harms the health of nearby communities, and does not meet the goals of the RPS program**

When incinerators burn trash, they emit more greenhouse gasses per unit of energy generated than even coal, the dirtiest of fossil fuels. In 2015, the Wheelabrator Baltimore incinerator emitted roughly double the amount of greenhouses gasses per unit of energy produced, on average, by each of the 7 coal plants located in Maryland. The Dickerson trash incinerator in Montgomery County produces 500,000 tons of greenhouse gasses that contribute to climate change. Much of the thermal output and therefore electricity produced by incinerators comes from plastic waste, meaning that trash incinerators are ultimately burning fossil fuels. Plastic is a petroleum product, so incinerators are essentially burning fossil fuels. This is a major source of GHG emissions: each ton of plastic burned results in the release of 1.43 tons of CO2, even after energy recovery. The process of incinerating trash creates an especially dangerous set of compounds called dioxins, declared by the World Health Organization as a known human carcinogen; dioxins are also linked to diseases of the immune system, endocrine system, nervous system, and reproductive system. Trash incineration does not fulfill the promise of "long-term increased emissions" and "a healthier environment" - quite the opposite.

5. **Subsidizing trash incineration tilts the scales against the development of better solid waste management methods that can actually achieve net-negative emissions.**

Contrary to the goals of the Renewable Portfolio Standard program, subsidizing trash incineration can actually increase net emissions from the solid waste sector by comparatively disincentivizing the development of composting, recycling, and other methods of waste diversion. Composting is the real champion of climate action in the solid waste sector: taking the very same waste that emits carbon dioxide in incinerators or methane in landfills and processing it into healthy soil amendments that actually sequester carbon in the soil, as the EPA describes here. Holistic changes to the solid waste management system through waste separation, recycling, and composting can transform the waste sector into a net negative source of GHG emissions, according to "Zero Waste to Zero Emissions," a report by the Global Alliance for Incinerator Alternatives. Introducing better waste management policies such as waste separation, recycling, and composting could cut total emissions from the waste sector by 84% or more than 1.4 billion tonnes, equivalent to the annual emissions of 300 million cars - or taking all motor vehicles in the U.S. off the road for a year. A combination of such strategies can even produce deeper emissions reductions than waste sector emissions. When there is such tremendous opportunity for decreased emissions in the solid waste sector using methods other than trash incineration, subsidizing incineration with "renewable energy" subsidies is especially backwards.

Conclusion

Trash is not a renewable resource, as it consists of organic waste that could be composted, plastic waste made from fossil fuels, and other materials made of finite resources. Energy created from trash is not renewable energy, and subsidizing energy production from trash incentivizes methods of waste management that are the worst for the environment over those that are the best, and withholds subsidies from the truly renewable, emissions-free energy that we need.

Please pass the Reclaim Renewable Energy Act and redirect the money subsidizing trash incineration, factory farm methane, and woody biomass to the truly renewable energy that we actually need to fight climate change, drive down emissions long-term, and create a healthier environment.

Thank you,

Jennifer Kunze
Maryland Coordinator
Clean Water Action

SB0590 - informational, Zero Waste to Zero Emissio

Uploaded by: Jennifer Kunze

Position: FAV

WASTE TO

EMISSIONS

How reducing waste is a climate gamechanger

OCTOBER 2022

gaia

Executive summary

As the climate crisis deepens, urgent action on all fronts is required to both eliminate greenhouse gas (GHG) emissions and adapt to a rapidly changing climate. The waste sector offers a prime opportunity for cities to take action that will dramatically reduce emissions, strengthen resilience, and provide substantial public health and economic benefits. The waste sector is the third largest source of anthropogenic methane emissions, whose reduction will deliver rapid benefits through avoided warming. In fact, good waste management practices can reduce emissions in other sectors, delivering more than 100% emissions reductions. Simultaneously, this approach, known as zero waste, can reduce flooding, deter disease transmission, improve soil health, and deliver economic opportunities. This report explains how zero waste is an essential part of any climate plan.

Seventy percent of global greenhouse emissions come from the material economy, from extraction through disposal. In national inventories, these emissions are tallied in the industrial, agricultural, transportation, and energy sectors, as well as the waste sector. Yet curbing waste generation and implementing better waste management strategies avoids emissions throughout the lifecycle of material goods—from extraction to end of life. The mitigation potential of the waste management sector is therefore largely underestimated.

Zero waste systems are versatile strategies that aim to continually reduce waste through source reduction, separate collection, composting, and recycling. Over 550 municipalities around the world are already implementing zero waste, in a wide range of economic, social, climatic, and legal contexts. Furthemore, these systems are cost-effective to implement and produce fast results.

This report is organized around the three overarching positive impacts of incorporating zero waste systems into current waste management methods: climate mitigation, climate adaptation, and additional societal benefits (also referred to as co-benefits). The final chapter of the report offers case studies that model the effects of zero waste strategies in eight different cities, demonstrating that zero waste is a powerful mitigation strategy that is highly adaptable to different needs and circumstances. Cities around the world have already implemented zero waste systems; with these eight case studies, this report offers a new quantitative assessment of the mitigation benefits of such programs.

Climate mitigation

Zero waste systems contribute to greenhouse gas emissions reductions in three ways: **source reduction and separate collection and treatment of organic waste** avoids landfill methane emissions; **land application of compost** or digestate enhances the carbon uptake of the soil; **and source reduction and recycling of all municipal waste streams reduces "upstream"** emissions from natural resource extraction, manufacturing, and transport;

Key takeaway 1

Composting is a climate game changer.

- Separate collection of different waste streams is critical to avoid cross-contamination; the most readily implementable treatment option for organic waste is composting.
- Source-separated collection and treatment of organics can reduce methane emissions from landfills by 62%, even with moderate ambition.
- Mechanical recovery and biological treatment of residual waste and biologically active landfill cover are good complementary measures to source separated organic waste collection; in tandem, these strategies can reduce methane emissions by an average of 95%.

Key takeaway 2

The zero waste model can transform the waste sector into a net negative source of GHG emissions.

- Introducing better waste management policies such as waste separation, recycling, and composting could cut total emissions from the waste sector by 84% or more than 1.4 billion tonnes, equivalent to the annual emissions of 300 million cars - or taking all motor vehicles in the U.S. off the road for a year.
- Separate collection and treatment of organic waste is key to deep cuts in waste-sector GHG emissions.
- Aggressive recycling programs reduce emissions in mining, forestry, manufacturing, and energy.

Increased recycling would reduce annual GHG emissions in the waste sector by 35% in Detroit, 30% in Sao Paulo, and 21% in Lviv by 2030

- Combined, these two approaches can produce deeper emissions reductions than waste sector emissions. Detroit, São Paulo, and Seoul would all achieve net-negative emissions under the 'road-to-zero-waste' scenarios.
- This is true even for relatively modest programs; full implementation of zero waste would produce even greater emissions reductions.

Key takeaway 3

Source reduction of waste is the best way to reduce GHG emissions, especially for food and plastic (better than recycling).

- Source reduction is a critical strategy for addressing food waste, which currently comprises one-third of all food production and is responsible for 10% of global GHG emissions.
- Other strategies for source reduction include restrictions on the production and distribution of single-use items and packaging.
- Source reduction is especially important for plastic, most of which is not recyclable and whose production is doubling every 20 years.

Key takeaway 4

Energy recovery is not an effective mitigation strategy

- Landfill gas capture is unreliable, allowing large quantities of fugitive methane emissions to escape.
- Incineration is a major source of GHG emissions: each tonne of plastic burned results in the release of 1.43 tonnes of CO_2, even after energy recovery.
- Insufficient energy is recovered to offset the carbon footprint of these technologies.

Climate adaptation

Zero waste systems help cities build resilience against the increasingly frequent extreme weather events and health hazards brought by climate change. Poor waste collection and management are among the factors that leave cities particularly exposed to these events. Zero waste systems help cities become more resilient by: **mitigating floods, reducing disease transmission**, and **improving soil quality**.

Key takeaway 1

Bans on single-use plastic (SUP) are necessary as plastic waste exacerbates flooding.

- Plastic bans and universal collection systems are key to flood prevention as improperly managed waste— especially plastic bags —lead to clogged drainage systems.
- After tragic flood events, many cities have successfully and swiftly adopted plastic bans.

Key takeaway 2

Banning SUPs and better waste collection will keep disease vectors at bay.

- Uncollected waste, especially plastic, creates habitat (e.g., stagnant water) for disease vectors, while food waste provides a food supply for vermin.
- Reducing waste through bans on SUPs and minimizing discarded food can help to interrupt the chain of disease transmission.

Key takeaway 3

Composting does wonders to improve soil resilience.

- Land application of compost helps nutrient-deficient soil by increasing nutrient storage capacity, biochemical properties, crop production, and water retention.
- Better soil quality prevents floods, mudslides, and loss of food crops.

Additional benefits

Well-implemented zero waste strategies benefit societies in ways that go beyond their ability to curb the impacts of climate change: they improve many of the most fundamental ways in which society functions– through associated **environmental, economic, social**, and **political and institutional benefits**. These additional benefits include improving public health, reducing environmental pollution, incentivizing job creation, supporting community development, and addressing inequalities and societal injustices. Furthermore, waste solutions at the top of the waste hierarchy not only have the greatest additional benefits, but also score highest on emissions reductions.

Key takeaway 1

Zero waste systems do more for our health and the environment than lower GHG emissions. Zero waste systems:

- Lower the risk of cancer and illnesses associated with the spread of toxic ash from incinerators and landfills by rendering them redundant;
- Save natural resources by decreasing the need and demand for virgin materials;
- Protect ecosystem health by decreasing plastic pollution, which currently affects all living organisms;

Key takeaway 2

Zero waste systems contribute to a thriving economy. Zero waste systems:

- Are more economical than traditional waste management strategies;
- Offer more and better employment opportunities than traditional waste management jobs;
- Spur business development: bans of single-use plastic have opened the door to innovative businesses.

Key takeaway 3

Zero waste systems provide a wide range of social benefits. Zero waste systems:

- Reduce poverty and inequality through the inclusion of informal waste pickers; .
- Improve public health by decreasing the amount of toxic chemicals in the environment;
- Improve food and water security via the application of compost and biodigestate, which support food and water ecosystems;
- Reduce environmental stressors associated with waste disposal facilities.

Key takeaway 4

Zero waste systems strengthen the quality of governance itself

- Bringing together a wide range of stakeholders, zero waste systems are more collaborative and demonstrate high performance rates as a result.

Case Studies

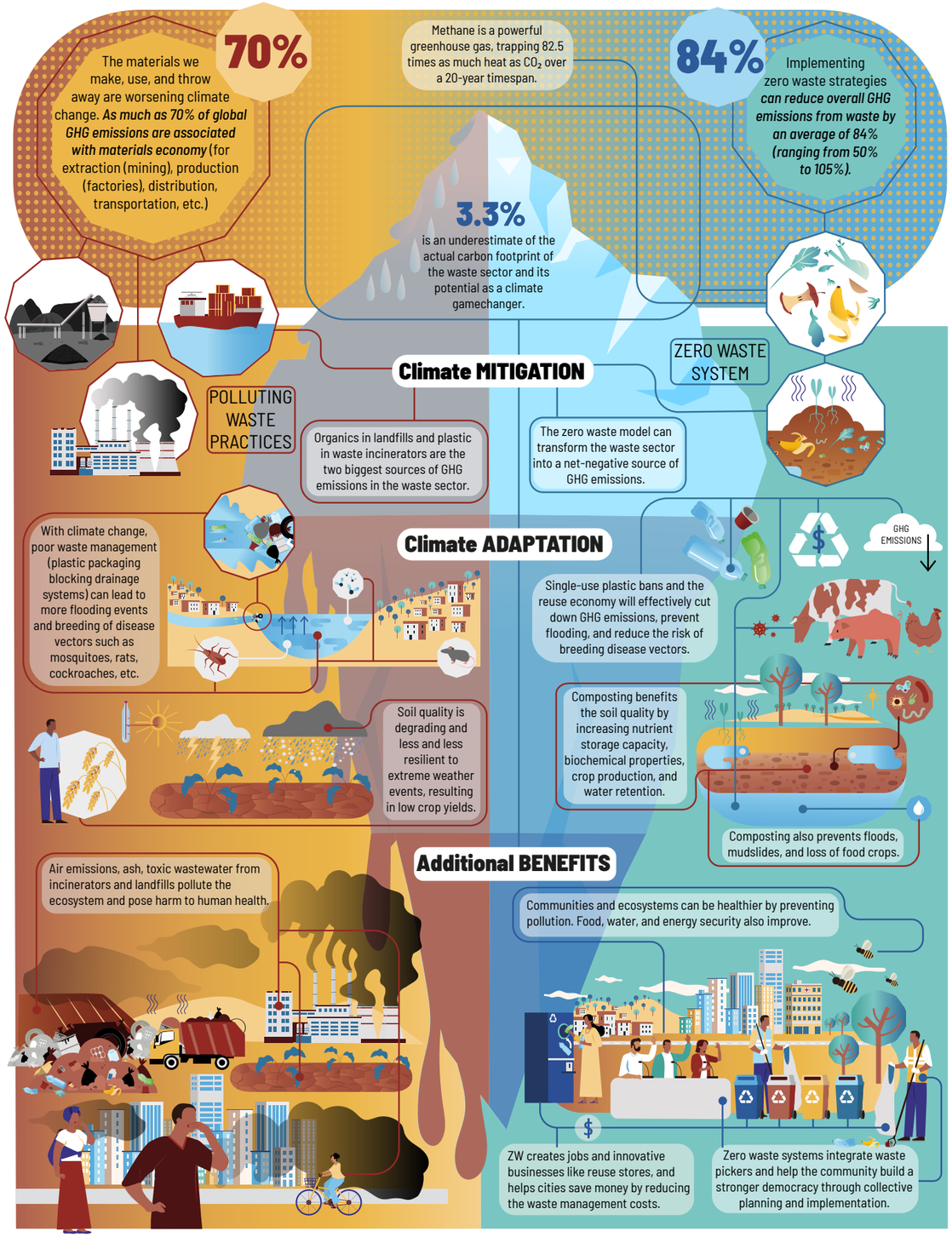
Modeling a business-as-usual versus a road-to-zero-waste scenario for eight cities revealed several commonalities regarding the efficiency and impact of zero waste systems. Source-separated collection and treatment (usually through composting) of organic waste is key to deep emissions reductions, as landfill methane is the primary source of GHG emissions in the waste stream in every city but Seoul. This is also the only effective method to fully address these emissions, and it is relatively easy and inexpensive to implement. Recycling is also key, as increased recycling reduces emissions, and can, in some cases, be enough to make a city's waste sector net negative. While source reduction strategies are underutilized across the board, all zero waste policy and programs, even when incompletely implemented, lead to major mitigation benefits everywhere. The 'road to zero waste' scenarios modeled here are conservative, realistic scenarios; many cities have already exceeded the benchmarks in these scenarios, and the results are thus indicative of moderately ambitious programs. Deeper emissions cuts can be expected from more ambitious zero waste implementation.

Recommendations

- **Incorporate zero waste goals and policies into climate mitigation and adaptation plans.**
  - Cities, which have the primary responsibility for waste management, should adopt comprehensive zero waste programs, with emphasis on source separation, organics treatment, and informal sector integration.
  - Funders and financial institutions should support city transitions to zero waste with financial and technical measures.
  - National governments can incorporate zero waste into their Nationally Determined Contributions (NDCs) and relevant national climate policies.
- **Prioritize food waste prevention and single-use plastic bans.**
  - Food waste prevention requires a dedicated strategy that integrates the entire supply chain, with interventions from field to fork.
  - Bans on single-use products and packaging, particularly plastic, can be adopted at the local or national level.
- **Institute separate collection and treatment of organic waste.**
  - Cities should develop clear, easy-to-use systems with uniform signage and dedicated outreach programs to ensure high compliance rates.
  - Composting is the easiest, least expensive, and most scalable treatment option for organic waste.
- **Invest in waste management systems, recycling and composting capacity.**
  - Relatively small capital inputs are required for source separated collection, material recovery facilities, organics treatment, etc.
  - Municipalities should create a plan to meet ongoing operational costs, which may be lower under zero waste.
- **Establish appropriate institutional frameworks for zero waste including regulations, educational and outreach programs, and provide financial incentives through subsidies to recycling and composting.**
  - Regulations to set up a comprehensive zero waste system are key, with strong emphasis on aligned economic incentives that promote a virtuous system, continuously improving its waste reduction rates.
  - Subsidies and other incentives to compost production and use are instrumental in developing these virtuous systems that can counter the heavily subsidized synthetic agrochemicals.
  - Education, communication and outreach programs which ensure all stakeholders are included are needed for high participation and compliance rates.
- **Recognize the role of waste pickers and fully integrate them into the waste management system.**
  - Create a consultative mechanism through which waste pickers can actively collaborate in the design of zero waste and take advantage of new opportunities, whether as employment or as entrepreneurs.
  - In cities where informal recyclers come from historically excluded populations, this may require ending long-standing discriminatory practices.

ZERO WASTE TO **ZERO** EMISSIONS

How reducing waste is a climate gamechanger



SB590.pdf
Uploaded by: John Ford
Position: FAV

Dear Members of the Senate Education, Energy, and the Environment Committee,

I am a resident of **D46. I am testifying in support of the Reclaim Renewable Energy Act of 2023 (SB590).**

It is extremely important to me, as a lifelong resident of Maryland who cares about the environment and climate of the state and will have to live with it for as many as 70 more years, that the General Assembly take pains to protect the integrity of renewable energy. I do not want the renewable energy program to be hijacked by those who wish to use biofuels as a trojan horse to build more permanent natural gas infrastructure in this state. I understand their game here, and I urge the committee not to fall for it with some friendly-sounding focus-tested branding.

Moreover, many of the sources of biofuels listed, such as animal manure, would be incentivizing activities that have otherwise deleterious effects and environmental externalities.

It is for these reasons that I am encouraging you to vote **in support of SB590.**

Thank you for your time, service, and consideration.

Sincerely,
John Ford

3301 Fleet St
Baltimore, MD 21224

2023 Testimony in Support of SB 0590.pdf

Uploaded by: Joseph Jankowski

Position: FAV

Testimony in SUPPORT of SB590 Reclaim Renewable Energy Act of 2023

Dear Chairman Feldman and members of the Education, Energy and the Environment Committee,

Maryland's Renewable Portfolio Standard provides subsidies to trash incineration and biogas production which contribute to greenhouse gas emissions in Maryland. Both trash incineration and biogas production can be replaced by composting and the current subsidies redirected to this environmentally friendly alternative.

The Eastern Shore of Maryland will be impacted by sea level rise before most of the rest of Maryland and it is essential for Maryland to do everything possible to reduce greenhouse gas emissions which cause global warming that will contribute significantly to sea level rise.

My waterfront home is located on the coastal bays of the Eastern Shore of Maryland. My home's existence and value are threatened by rising sea levels. Your passage of this bill will help protect me and my family from future harm.

Respectfully,

Joseph Jankowski

Berlin, Maryland 21811

SB590_MDSierraClub_fav 28Feb2023.pdf
Uploaded by: Josh Tulkin
Position: FAV

P.O. Box 278
Riverdale, MD 20738

Committee: Education, Energy, and the Environment
Testimony on: SB590 "Renewable Energy Portfolio Standard – Eligible Sources – Alterations (Reclaim Renewable Energy Act of 2023)"
Position: Support
Hearing Date: February 28, 2023

The Maryland Chapter of the Sierra Club supports SB590. This bill will remove polluting energy from Maryland's Renewable Portfolio Standard (RPS), including trash incineration, burning of forest resources, poultry litter-to-energy and animal manure-to-energy, and gas produced from the anaerobic decomposition of animal or poultry waste. This will remedy significant environmental and climate issues.

The RPS is among our State's most important programs for substantially reducing our emissions of climate-disrupting greenhouse gases. As a result of the RPS, Maryland has been turning – albeit too slowly – toward electricity generated by clean, renewable energy sources. The energy sources supported by the RPS include solar, offshore and onshore wind, geothermal energy, ocean energy, and certain hydroelectric energy. It also, however, includes the polluting sources that this bill will remove from the RPS.

The RPS provides financial support to the renewable energy industry by requiring Maryland retail electricity suppliers to purchase a minimum number of Renewable Energy Credits ("RECs") each year from renewable electricity generators covered by the RPS. A REC constitutes a financial attribute owing to the production of one megawatt-hour of electricity generated from one of the renewable energy sources. The RPS defines the requisite minimum number of RECs in terms of a percentage of the supplier's energy sales. That percentage currently is slightly above a third, and will rise to 52.5% in 2030.

According to the most recent RPS report prepared by the Public Service Commission, of the electricity sources to be removed from the RPS, trash incineration is the largest defined by the number of its RECs being purchased by Maryland electricity suppliers.[1] Trash incineration is not clean or environmentally neutral – it emits climate-disrupting carbon dioxide and other pollutants which cause serious damage to Marylanders' health. Incineration facilities typically emit more carbon dioxide, dioxin, mercury, nitrogen oxide, and lead than fossil fuel plants. Their residual ash contains high concentrations of harmful toxins including dioxin, mercury, lead, and other heavy metals; these high concentrations rapidly leach into local soil and water.

The trash incinerator in downtown Baltimore causes major damage to the health of the city's residents, producing about a third of all industrial air pollution in Baltimore. It emits a substantial

[1] Public Service Commission, "Renewable Energy Portfolio Standard Report, With Data for Calendar Year 2021" (November 2022), at 10. https://www.psc.state.md.us/wp-content/uploads/CY21-RPS-Annual-Report_Final.pdf.

amount of mercury and lead – both known to be critical threats to children's neurologic development. It also is the city's single largest source of pollutants that cause respiratory disease, sulfur dioxide and nitrogen oxides (NOx). Sulfur dioxide triggers acute respiratory irritation, triggering immediate worsening for anyone with an underlying pulmonary disorder, such as COPD. Nitrogen oxides contribute to childhood asthma and are the major source of ground-level ozone (smog) formations that trigger asthma attacks.

The RPS should be focused on incentivizing new, renewable energy facilities which support Maryland's efforts to mitigate climate change. Both trash incinerators in Maryland supported by the RPS began operations well before the RPS's first compliance year, 2006. The Covanta incinerator in Dickerson, Maryland began commercial operation in 1995, and the Wheelabrator incinerator in downtown Baltimore began operation in the 1980s. Maryland's RPS dollars also have been supporting a Covanta incinerator in Fairfax County, Virginia, which began commercial operations in 1990. There is no indication that these facilities require the RPS subsidy in order to remain in operation.

For these reasons, the Maryland Sierra Club urges a favorable report on SB590.

Susan Olsen
Susan.Olsen@MDSierra.org

Josh Tulkin
Chapter Director
Josh.Tulkin@MDSierra.org

SB590 Reclaim Renewable Energy Act Cover Letter.pd
Uploaded by: Karen Lewis Young
Position: FAV

KAREN LEWIS YOUNG
Legislative District 3
Frederick County

Committee on Education, Energy, and the Environment

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THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

February 27, 2023
Support of SB 590 – Reclaim Renewable Energy Act of 2023
The Honorable Brian Feldman
Education, Energy, and Environment Committee
Maryland Senate
11 Bladen Street, Room 302
Annapolis, MD 21401

Chair Feldman, Vice-Chair Kagan, and Esteemed Members of the Education, Energy, and Environment Committee:

The Reclaim Renewable Energy Act of 2023 would alter the energy sources that the state includes in the renewable energy portfolio standard (RPS) program. Sources that produce greenhouse gasses would be removed from the state's RPS program, meaning that energy suppliers would not be able to use these energy sources to meet their renewable energy requirements.This bill will remove energy derived from trash incineration, factory farm methane or "biogas," and woody biomass.

Including dirty energy sources in the RPS harms ratepayers, impedes job growth, causes sickness, and pollutes the state. Maryland's ratepayers spend about $17 million annually to buy renewable energy credits (RECs) from dirty energy sources. Moreover, these dirty energy sources are overwhelmingly located outside the state–we are funding trash incinerators in Virginia and anaerobic digesters in Delaware at the expense of wind and solar jobs in Maryland.

These dirty energy sources also present significant human health and environmental risks. Our RPS is littered with dirty energy; trash incineration took up 6.4% of RECs, woody biomass took up 3.4% of RECs, and factory farm biogas took up a negligible amount of RECs. Together, the ten facilities and three types of energy that would lose subsidies under this bill took up 10% of the RECs in 2021 [1]. Rather than fulfilling its mission to transition the state to genuinely renewable energy, the RPS is bogged down by polluting fuel sources. The General Assembly already acknowledged that the Renewable Portfolio Standard will be more effective

[1] Renewable Energy Portfolio Standard. Public Service Commission of Maryland. November, 2022 https://www.psc.state.md.us/wp-content/uploads/CY21-RPS-Annual-Report_Final.pdf

with fewer polluters eligible for it. The legislature already eliminated black liquor from RPS eligibility in 2021.[2] Passing SB 590 is a continuation of that good work and will make the RPS even more effective at meeting its goals.

Dirty energy sources pose disproportionate impacts on communities of color, which are often chosen as sites for polluting facilities. For example, the state's two trash incinerators release a dangerous set of compounds called dioxins, which the World Health Organization has identified as a human carcinogen. Dioxins are also linked to diseases of the immune system, endocrine system, nervous system, and reproductive system. Air pollutants from waste incinerators also increase the risk of pre-term births and certain types of cancer.

Subsidizing dirty energy sources is a sweetheart deal for a handful of industries, mostly located out of state. However, it's a boondoggle for Marylanders, who are stuck paying higher utility bills for fewer jobs and more pollution. Reserving Tier 1 subsidies for legitimately clean energy will create new jobs and mitigate climate change.

I urge a favorable report.

Sincerely,

Senator Karen Lewis Young

[2] https://mgaleg.maryland.gov/mgawebsite/Legislation/Details/SB0065?ys=2021RS&search=True

20230227 SCA Testimony SB0590.pdf
Uploaded by: Lauren Greenberger
Position: FAV

Sugarloaf Citizens' Association

Protecting Our Rural Legacy

Linden Farm, 20900 Martinsburg Rd., PO Box 218, Dickerson, MD 20842 • Tel. 301-349-4889
www.SugarloafCitizens.org

Testimony for SB0590: Reclaim Renewable Energy Act
Favorable Report

2.27.2023

I am Lauren Greenberger, Vice President of Sugarloaf Citizens' Association in Dickerson.

We know that waste incineration is horribly polluting – Covanta will tell you they operate below EPA requirements but that still means they are putting over 600,000 tons of GHG in the air annually and dozens of other toxins including 24 pounds of mercury – one gram of mercury can render a whole reservoir undrinkable. Our incinerator is 5-25 times more polluting, depending on the toxin, per unit of energy produced than a coal-fired power plant. Would you consider subsidizing coal plants as clean energy?? This is the number one largest polluter in the county and number two in the whole state.

By keeping trash incineration in the RPS we are subsidizing this polluter and, more importantly, taking away from the expansion of wind and solar production – industries we desperately need to combat global warming.

While George Bush was still governor of Texas, he signed a Renewable Portfolio Standard bill into law. The Texas RPS law caused the dirty utilities to have to invest in truly renewable energy. They turned to wind power, making Texas second to California in wind generation and causing more wind power to be installed in Texas (912 MW) than in the rest of the U.S. combined (775 MW). This is the power of a CLEAN RPS.

Now I know there are rumors that taking away this subsidy will make electric bills go up. This is ludicrous – electric bills will go DOWN because PURPA charges will be reduced. The incinerator industry does not set the market price, they sell to the grid and can charge current market rates. If subsidies are eliminated, the incinerator industry will lose some revenue, but ratepayers will pay a little bit less – that's it. Market rates will not increase.

Sugarloaf Citizens' Association

Protecting Our Rural Legacy

Linden Farm, 20900 Martinsburg Rd., PO Box 218, Dickerson, MD 20842 • Tel. 301-349-4889
www.SugarloafCitizens.org

This bill does not call for the closure of any incinerators. Just to stop allowing money earmarked for growing the clean energy sector to be sent to incinerators. No jobs will be lost, no new landfills will be built.

When Montgomery County does close its waste incinerator, as the County Executive has publicly announced he will do, there will be many more jobs in zero waste industries than incineration. Recology in San Francisco provides hundreds of well-paid union jobs to manage their waste and dramatically reduce the volume that must be landfilled. Residual waste that can not be composted or recycled will safely and economically go via rail or truck to one of several well-managed landfills the County has identified that meet the it's stringent environmental justice criteria including a 75% methane capture rate, low levels of rainfall, and sparse population nearby. This will be far safer for all those that breathe in the fine particulate matter and toxins from the current incinerator as well as for the majority black community that lives next to the landfill outside of Richmond VA that receives 200,000 tons of incinerator ash annually from Montgomery County.

It is also important to note that, because Montgomery County owns the Dickerson incinerator, Covanta has not been getting the REC's for it the past 12 years, the County has. They will lose nothing. County Executive Elrich has purposely NOT included the income from RECs in his current budget estimates because he fully supports removing incineration from the RPS. He recognizes how foolish it is for our community and our planet to be pouring money into dirty technology that could be going to clean.

Please support a truly clean energy industry across the state that provides good, well-paying jobs and a path forward for all our children that will mitigate the devastating effects of GHG emitting industries.
We ask for a favorable report on this bill.

Thank you so much for your attention.

SB590_Reclaim Renewable Energy Act_Educ Energy Env
Uploaded by: Laurie McGilvray
Position: FAV

Committee: **Education, Energy, and the Environment**
Testimony on: **SB0590 - Reclaim Renewable Energy Act of 2023**
Organization: **Climate Justice Wing of the Maryland Legislative Coalition**
Submitting: **Laurie McGilvray, Co-Chair**
Position: **Favorable**
Hearing Date: **February 28, 2023**

Dear Chair and Committee Members:

Thank you for allowing our testimony today in support of SB590. The Maryland Legislative Coalition Climate Justice Wing, a statewide coalition of over 50 grassroots and professional organizations, urges you to vote favorably on SB590.

The Reclaim Renewable Energy Act (SB590) will clean up the Renewable Portfolio Standard (RPS) by retaining subsidies for truly renewable energy sources and removing subsidies for dirty sources, i.e., trash incineration, woody biomass, and factory farm methane gas. As Maryland moves aggressively toward meeting its ambitious greenhouse gas (GHG) reduction goals, we need to align all available incentives toward clean sources of energy and stop incentivizing polluting sources.

Trash incineration

Trash incineration was only added to Tier 1 of the RPS in 2011, making it part of the same subsidized category as wind and solar. In 2015, the Baltimore incinerator emitted on average about twice as much GHG per unit energy produced as each of the coal plants located in Maryland. In addition, air pollution from waste incinerators increase the risk of pre-term births, cancers of the blood and lung, and emergency room visits. According to a Chesapeake Bay Foundation commissioned study, fine particulate matter emitted from the Baltimore "waste-to-energy" facility causes over $55 million in adverse health effects annually. The Climate Justice Wing supports policies that benefit overburdened and underserved communities, which have historically sustained disproportionate environmental harm. The South Baltimore communities closest to the incinerator are truly overburdened by multiple pollution sources, including the incinerator, and residents experience disproportionate health effects. This polluting source of energy should not be receiving a Renewable Energy Credit (REC) subsidy intended to promote the generation of clean and healthy renewable energy.

Burning woody biomass

In current law, "qualifying biomass" means a nonhazardous, organic material that is available on a renewable or recurring basis, and is waste material that is segregated from inorganic waste material and is derived from specific sources. However, not all biomass sources can produce "clean" renewable energy. The bill removes two sources of qualifying woody biomass - mill residue, except sawdust and wood shavings, and precommercial soft wood thinning, slash, brush, or yard waste. Burning wood for electricity produces as much or more pollution than fossil fuels, including coal. Biomass facilities emit high levels of particulates, nitrogen oxides, carbon monoxide, sulfur dioxide, lead, mercury, and other hazardous air pollutants. As with trash incineration, Maryland should not be subsidizing through the RPS the burning of these types of woody biomass, because they represent a polluting source of energy and impact the health of nearby residents.

Animal waste methane gas:

SB590 removes one additional source of "qualifying biomass" from the RPS - gas produced from the anaerobic decomposition of animal waste or poultry waste. Anaerobic digestion is a process whereby micro-organisms breakdown organic material and produce methane as a biproduct. Methane is a powerful greenhouse gas, and burning it produces carbon dioxide (another greenhouse gas). While anaerobic digestion is one way to handle animal waste, it leaves behind a digestate that must be disposed of, in addition to producing methane, and does nothing to address the human health and environmental impacts of large confined animal feeding operations (CAFOs). One significant concern with including methane gas from anaerobic digestion of animal waste in the RPS is that it subsidizes yet another greenhouse gas-emitting source of energy. It also perpetuates the problems of methane leaks from facilities and pipelines, not to mention making it harder for Maryland to reduce its dependence on burning gas as an energy source. Another major concern is that subsidizing the operation of CAFOs through RECs perpetuates the unacceptable health impacts to overburdened communities near the facilities.

By removing these dirty sources of energy from the RPS, Maryland will better direct its subsidies to the truly clean, renewable energy sources of the future. We strongly support SB590 and urge a **FAVORABLE** report in Committee.

SB590_EEE_FAV_HoCoClimateAction.org.pdf
Uploaded by: Liz Feighner
Position: FAV

HoCoClimateAction.org
Howard County, Maryland

SB590/HB718: Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)
Hearing Date: Feb. 28, 2023
Bill Sponsor: Senator Lewis Young
Committee: Education, Energy, and the Environment
Submitting: Liz Feighner for Howard County Climate Action
Position: Favorable

HoCo Climate Action is a 350.org local chapter and a grassroots organization representing more than 1,400 subscribers. It is also a member of the Climate Justice Wing of the Maryland Legislative Coalition.

Howard County Climate Action supports SB590/HB718, the Reclaim Renewable Energy Act of 2023. In order to meet our climate goals of reducing greenhouse gas emissions in Maryland, we need to have a truly Renewable Portfolio Standard (RPS). Maryland's current RPS considers burning trash, burning wood, and producing methane from chicken manure all as "renewable energy". This bill reforms the current RPS and will eliminate three types of energy from Maryland's RPS: trash incineration, woody biomass, and factory farm methane gas. Subsidies for energy sources that pollute the environment, harm nearby communities' health, and contribute to climate change cost Maryland ratepayers and do not belong in a renewable energy standard.

Beyond the climate polluting gases, many dirty energy sources produce a host of other toxic gases and pollutants. Incineration is the most notorious dirty energy offender and increases the risk of preterm births, cancers of the blood and lung, and emergency room visits. Poultry litter(manure)-to-energy facilities would not solve nutrient runoff problems from farm waste; they would exacerbate it. Woody biomass incineration emits high levels of particulate matter (PM), nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO2), lead, mercury, and other hazardous air pollutants.

Maryland ratepayers contributed over $32 million to subsidize these dirty energy sources in 2019 alone, over $200 million since 2008 through Renewable Energy Credits (RECs). These dirty energy sources are overwhelmingly located outside of Maryland, meaning that Maryland ratepayers' money is flowing out of state - $108 million to dirty energy sources since 2008 in Virginia alone. On average these RECs are more expensive than an equivalent REC from truly clean sources like geothermal, solar, and wind.

Maryland cannot afford another year of throwing our "renewable energy" money away on polluters, so please support the SB-590/HB-718 - Reclaim Renewable Energy Act of 2023.

Howard County Climate Action
Submitted by Liz Feighner, Steering and Advocacy Committee
www.HoCoClimateAction.org
HoCoClimateAction@gmail.com

Testimony for SB590 Nadler.pdf
Uploaded by: Margaree Nadler
Position: FAV

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Testimony on Maryland Senate Bill 590
Reclaim Renewable Energy Act

TO: Chair Feldman, Vice Chair Kagan, and members of the committee
FROM: Margaree Nadler, Member of Progressive Maryland
DATE: February 28, 2023
POSITION: Favorable

Thank you for the opportunity to offer testimony in support of the Reclaim Renewable Energy Act. Progressive Maryland is a grassroots nonprofit organization with regional chapters from Frederick to the Lower Shore and more than 100,000 members and supporters who live in nearly every legislative district in the state. In addition, there are dozens of affiliated community, faith, and labor organizations across the state that stand behind our work. Our mission is to improve the lives of working families in Maryland. **Please note our strong support for SB590.**

In the last few years, Baltimore has embraced efforts that better our city and environment. We have successfully banned plastic bags and Styrofoam, while businesses have attempted to curb single-use plastic consumption. Yet, we continue to subsidize the city's number one polluter by allowing Wheelabrator to function under the guise of renewable energy.

I am a resident of Baltimore, located in the 46th District. When I moved to Baltimore four years ago, I was struck by the beautiful city skyline that greets everyone who enters via I-95. At the time, I didn't realize one of the signature parts of that view was the incinerator, but I quickly learned that it was responsible for the haze I would see settling over that part of the city and the culprit of most pollutants in our city air.

Protecting Wheelabrator with incentives reserved for renewable energy efforts hamper our city's ability to embrace environmental change fully. Supporters of Wheelabrator will argue that it will take decades for Baltimore to move to a zero-waste model, and the only alternative until then is to incinerate our city's trash. However, to keep the incinerator in service, the city must hinder recycling and composting efforts to create the constant stream of waste that the incinerator demands. In 2019, Wheelabrator sued Baltimore County for not delivering its promised amount of refuse, essentially holding the county taxpayers hostage in a move that actively disincentivizes more sustainable options.

The incinerator also impacts the health of Baltimore's most underrepresented and vulnerable communities. Incinerators like Wheelabrator are disproportionally installed in low-income and impoverished areas where the primary residents are people of color. In Baltimore, the

adverse health effects are staggering - the life expectancy for children born in Cherry Hill, the area where the incinerator is located, is 10 years less than the statewide average. I've heard members of the Cherry Hill community speak about how they have watched their family members suffer and die of respiratory issues, cardiovascular illness, and cancer. I can also speak to my health struggles - I never experienced so much as allergies until I moved to Baltimore, and I now suffer from frequent respiratory problems. I do not doubt that the incinerator's pollutants have exasperated those issues.

I implore you to listen to the residents of Cherry Hill and the members of the Baltimore community as they speak on the damage the incinerator has done to our environment and health. I hope you recognize the power in opportunities provided by clean and real renewable energy options and will revoke trash incineration's status as renewable energy so Baltimore can move forward to more healthy and sustainable alternatives.

For these reasons, **we respectfully urge a favorable report on SB590**.

Margaree Nadler

RE Support Testimony on SB590 HB718.pdf
Uploaded by: maria payan
Position: FAV

RE: Support Testimony on: SB590/ HB718

Committee: Education, Energy, and the Environment
Testimony on: SB590/ HB718
Position: Favorable
Hearing Date: February 28, 2023

Dear Chair Feldman, Vice Chair Kagan and members of the committee,

Thank you for the opportunity to submit testimony in support of SB590. My name is Maria Payan. I am Co-founder of Sentinels Of Eastern Shore Health, based on the Lower Eastern Shore of Maryland and Sussex Health & Environmental Network in Sussex County, Delaware. Our coalition members unify a collective voice for positive solutions and inclusiveness in working towards healthy solutions. Our vision of healthy communities include environmental health, public health, economic health and social health.

I feel that it is important that you have an accurate picture of what is happening in our communities as large scale regional biogas facilities, untried and untested are being proposed across the Lower Eastern Shore in Maryland and in Sussex County Delaware.

There is a pattern of misrepresenting biogas projects as a way to help our small farmers with their litter and the runoff which is currently contaminating our wells and streams. Right now, the Bioenergy Devco project in Sussex County is part of a civil rights Title VI Administrative Complaint. This project is being sited in a community that is linguistically isolated with little political power or voice. The reality is that this project is proposing to take waste from the processing plants across the Delmarva region and beyond into Sussex County. **Of the 250,000 tons of waste, only 12 percent is broiler litter. The other 88 percent is processing plant waste from three other states across our region.**

Within three miles of the Project, residents of color make up 32% of the population, but only account for 17% of the population in Sussex County. Residents living in poverty make up 34% of those living within three miles of the Project, whereas only 12% of the population in Sussex County lives in poverty. And many community members near the site have limited English language proficiency. These disparities indicate environmental and economic injustices already exist.

These projects are about bringing waste into communities on the backs of Maryland ratepayers. If the industry has a waste problem - they need to be pushed to manage it through composting, nutrient management plans, and less concentration in residential communities.

The Reclaim Renewable Energy Act to remove biogas from the renewable portfolio standard will help to prevent the negative impacts of these harmful pollutants on the environment and public health. It will also encourage the development and implementation of true clean energy sources like wind and solar, which are much better for the environment and do not cause the negative impacts associated with biogas.

In conclusion, I urge you to support the proposed bill to remove dirty energy sources like trash incineration and biogas from the renewable portfolio standard. This will help to prevent environmental injustice and incentivize the development of true clean energy sources like wind and solar.

Thank you for your attention to this important issue.

Respectfully

Maria Payan

Maria Payan
Co-Founder
Sentinels of Eastern Shore Health
sentinelsesh2019@gmail.com

More Information:

Is Turning Chicken Poop Into Fuel a Good Idea?:

"As the anaerobic-digester rollout continues on Delmarva, Morra feels 'terrible,' he said, about his tax dollars supporting projects that are poised to enrich poultry giants but fail to relieve the environmental and health burdens of those who live near chicken barns. 'It's like paying for my own problems,' he said with a sigh. 'It's ridiculous.'"

Dirty Delaware Project to Turn Poultry Slaughterhouse Waste into Pipeline Grade Methane

"These digesters do not solve animal waste problems, and they do not reduce phosphorus or nitrogen levels in manure. Manure still needs to be managed through practices such as field application."

Public Comment on the Bioenergy Development Company, LLC ("BDC") Bioenergy Innovation Center Project, proposed to be located at 28338 Enviro Way, Seaford, Sussex County, Delaware. (Page 7 - Neighbors testimonials).

"I don't like the idea of bringing the chicken waste near me and my kids. This gas could bring us harm in many ways. I don't like the idea of so many trucks transporting gas that could possibly explode, close to any of the many kids that walk these roads. And there are many, many kids."

Written Testimony in Support of SB590.pdf
Uploaded by: Michael Rosenblum
Position: FAV

Committee: Education, Energy, and the Environment
Testimony on SB590 "Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)"
Position: SUPPORT
Hearing Date: February 28, 2023

Dear Chair Feldman, Vice-Chair Kagan, and Members of the Senate Education, Energy, and the Environment Committee,

I am writing to you as a resident of Baltimore, Maryland, and I strongly support this bill, i.e., the Reclaim Renewable Energy Act. This bill will remove the following types of energy from Maryland's Renewable Energy Portfolio Standard: trash incineration, woody biomass, and factory farm methane gas. Each of these contributes to green house gas emissions and also air pollution, which harms our community.

Thank you kindly for considering this bill!

Signed, 

Michael Rosenblum, PhD
Professor, Department of Biostatistics
Johns Hopkins Bloomberg School of Public Health

The views in this document reflect the individual position of the signatories and not the Johns Hopkins Bloomberg School of Public Health or Johns Hopkins University.

SB590_EnergyJusticeNetwork_Ewall_FAV.pdf
Uploaded by: Mike Ewall
Position: FAV

February 28, 2023

Comments before Senate Education, Energy, and the Environment Committee

FAVORABLE

Senate Bill 590

Renewable Energy Portfolio Standard - Eligible Sources – Alterations

Mike Ewall, Esq.
Founder & Director
Energy Justice Network
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mike@energyjustice.net
www.EnergyJustice.net

Good afternoon. My name is Mike Ewall, and I'm the founder and director of a national organization, Energy Justice Network. Energy Justice works at the local level with grassroots community groups in Maryland and the rest of the country to support efforts to promote zero waste, and to stop polluting and unnecessary energy and waste industry facilities, with a focus on ending waste incineration.

We emphatically support this legislation, and are the only group to have been speaking up against all of the dirty energy sources since before Maryland adopted the Renewable Portfolio Standard in the first place, two decades ago. We warned that it would be subsidizing polluters, and history has proved us right, as this policy has become a leading driver of support for dirty so-called "renewable" energy sources across many states, as far as Wisconsin and Tennessee. We were the first to put forth this legislation in 2016.

We applaud those of you who, in 2021, supported the bill to finally removing subsidies for burning the toxic "black liquor" from paper mills. Now it's time to finish the job of cleaning up this RPS law. Some high-level points to consider:

Trash incineration (a.k.a. "refuse-derived fuel" and "waste-to-energy")

- It's the most expensive and polluting way to manage waste or to make energy. It's dirtier than coal burning and worse than simply landfilling waste directly instead of turning it into air pollution and toxic ash before landfilling the ash. The latest EPA data shows that burning trash releases 65% more greenhouse gases than burning coal per unit of energy – clearly *not* a climate solution.
- Montgomery County has been consistently on record in support of removing incineration RECs, even though they benefit from them, as they get the windfall from the RECs at this publicly-owned incinerator. In fact, the county is actively planning to close the incinerator early.
- Baltimore City Council has passed unanimous resolutions in 2017 and 2019 in support of removing incineration RECs as well. Since Wheelabrator Baltimore is privately owned, and the city is already in a new long-term contract (and the last contract) with the incinerator, the city has nothing to lose by steering the millions of dollars away from the Australian-based holding company that owns and operates their incinerator, and letting those ratepayer funds go to wind and solar where they belong. In fact, Baltimore cannot meet their own climate goals without such a transition. Baltimore City's mayor is on record saying that the current contract to incinerator their waste is their last.
- The only other incinerator benefitting from the RPS is in Virginia. Covanta Fairfax is the largest facility getting credits from Maryland' ratepayers. They're the largest air polluter within at least 25 miles of DC, where much of their pollution blows right into Maryland. With Montgomery County and Baltimore City both aiming to move away from trash burning, why stay stuck on subsidizing this industry? For a polluter in Virginia?
- No one is building new incinerators. This industry is dying, and no new incinerator can be built in the U.S. due to intense community opposition and the incredible expense of such unnecessary machines.

Landfill gas

- 94% of the credits go out-of-state to landfills in eight other states.

- If incinerators are no longer to be subsidized, it's only fair that landfills not be subsidized, either.
- Landfill gas burning incentivizes mismanagement of landfills in ways that cause more gas to escape capture.
- Subsidizing landfills and incineration puts waste reduction at a competitive disadvantage, as no similar subsidies are flowing to waste reduction, reuse, recycling, composting, or back-end processing to stabilize waste prior to landfilling.

Biomass

- 97.3% of the RECs for biomass are going out-of-state, mostly to Virginia and North Carolina, to burn trees or paper mill waste that is categorized separately from black liquor and is still subsidizing many of the same 11 out-of-state paper mills that the legislature acted last year to stop supporting by banning black liquor from the RPS.
- Biomass burning is 50% worse than coal for the climate. It is not carbon neutral, as it takes about 45 years for newly growing trees to suck up enough carbon to become equivalent to coal burning (which is still far from carbon neutrality, which is never reached).

Poultry litter

- Despite being in the MD RPS since the start, no poultry waste incinerators have been seriously proposed or built in the past 20 years since they started talking about it.
- About a dozen proposed poultry waste incinerators in the U.S. were stopped by communities who refused to accept them.
- The only commercial scale poultry waste incinerator built in the U.S. was Fibrominn in Benson, Minnesota. That facility illegally burned construction and demolition waste, and violated its air emissions limits from their very first year. Poultry waste burning is so expensive that Xcel Energy, the large power utility in Minnesota that was required to buy its power under a similar law, lobbied to get poultry waste incineration removed so that they could buy out the plant and town and tear down the plant, which they did in 2019. Xcel Energy pointed out that it was costing them 10 times more to buy this power than to build new wind power.

Anaerobic Digestion

- Anaerobic digestion isn't a good idea, either. It's better to aerobically compost poultry litter, without creating the methane and risking methane leakage. Rates of methane leakage from farm digesters are high enough that the global warming impacts are worse than coal burning.
- 100% of the credits for "biogas" have been going out-of-state, all to Ohio until 2018, when DC, VA, and PA started to profit from Maryland's policy.
- In 2020, 88% went to the sewage treatment plant in DC, which doesn't need subsidies by Maryland ratepayers. The sewage treatment plant serves Maryland and isn't at risk of going away, nor are its digesters. Some Maryland residents already pay for it through their sewer bills.

All told, there is nothing worth protecting among these dirty energy sources. Please support Senate Bill 590 so that we can finally be done transitioning Maryland's RPS to one that is based solely on sources without smokestacks.

SB590 Balt Commn Sust.pdf
Uploaded by: Miriam Avins
Position: FAV

BALTIMORE COMMISSION ON SUSTAINABILITY

People ♦ Planet ♦ Prosperity

February 27, 2023

Senator and Committee Chair Brian J. Feldman
Senator and Committee Vice Chair Cheryl Kagan
Members of the Senate Education, Energy and the Environment Committee

RE: **Support** for SB0590, Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)

Dear Chair Feldman and Members of the Senate Education, Energy and the Environment Committee,

We are writing in support of SB0590, the Reclaim Renewable Energy Act of 2023.

The Baltimore Commission on Sustainability is a body appointed by the Mayor to oversee the creation and implementation of the Baltimore Sustainability Plan. The 2019 Baltimore Sustainability Plan addresses a wide range of social, economic and environmental goals for the City, and it does so through an equity lens.

The Baltimore Commission on Sustainability has a strong interest in the success of SB0590. Baltimore's 2019 Sustainability Plan's Energy section calls for the higher standards for Maryland's RPS (Strategy 2, Action 2). With the growth of renewable and clean energy sources in Maryland, the inclusion of biomass in our RPS does not align with our Sustainability Plan's clean air targets, nor the targets of other national, regional, or state documents and laws. This bill would disincentivize harmful pollutants that impact marginalized communities.

We urge the Committee to support SB0590.

Sincerely,

Miriam Avins
Mia Blom
Co-chairs, Commission on Sustainability

Cc: Senator Karen Lewis Young

BALTIMORE COMMISSION ON SUSTAINABILITY
417 E Fayette Street, 8th Floor
Baltimore MD 21202

SB590-Reclaim Renewable Energy - EEE-MoCoCAP-FAV.p
Uploaded by: MoCo Climate Action Plan Coalition Younts
Position: FAV

Montgomery County
Climate Action Plan Coalition

Committee: Education, Energy and The Environment
Testimony on: SB590 - Reclaim Renewable Energy Act of 2023
Organization: MoCo CAP Coalition (Montgomery County Climate Action Plan Coalition)
Submitting: Diana Younts
Position: Favorable
Hearing Date: February 28, 2023

Dear Mr. Chairman and Committee Members:

Thank you for allowing our testimony today. The MoCo CAP Coalition is a Montgomery County-wide Coalition of grassroots organizations dedicated to helping our County reach the goal of its Climate Action Plan to reduce greenhouse gas emissions 80% by 2027 and 100% by 2035. We urge you to vote favorably on HB590.

HB590 takes Maryland's Renewable Portfolio Standards (RPS) back to its original purpose: to incentivize the production of clean, renewable energy. It does so by removing dirty sources of energy from the RPS – trash incineration, biogas methane from the anaerobic digestion of chicken poop, and the burning of woody biomass.

- Burning trash is not clean.
    - It actively harms the health of the communities that surround incinerators and shortens the average lifespan of those community members; and
    - the financial incentives for those incinerators impede the development of zero waste solutions that would divert organics and other materials from the waste stream.
- Gas produced from the anaerobic decomposition of animal and poultry waste is not clean.
    - Factory Farm methane is as dirty as burning or leaking fracked gas;
    - the incentives for the building of new processing facilities locks us into the factory farm system; and
    - it allows for "greenwashing" by the gas utilities to claim they are moving toward renewable energy without making systemic changes to the pipeline infrastructure that depends on fracked gas.
- Burning woody biomass is not clean.
    - Under current RPS standards, woody biomass qualifies as a tier 1 source of thermal energy when used in the anaerobic digestion of chicken poop. As such, it releases methane when produced.
    - Moreover, disallowing woody biomass from the RPS would forestall efforts to expand greater inclusion of woody biomass in the RPS and the further

expansion of dirty sources of energy in the RPS.

According to a Report released last year by PEER (Public Employees for Environmental Responsibility), Maryland taxpayers have paid more than $189 million to subsidize dirty energy facilities in Virginia and Maryland since 2008, and the Report further projected Marylanders will spend $311 million more for such dirty energy between now until 2030, and much of it does not even provide energy to Maryland or jobs for Marylanders.

For instance, According to the Report as reported by an article in Maryland Matters, we Marylanders spent more than $26 million since 2014 purchasing energy credits from a facility in Virginia that burns wood waste to produce energy for Virginia.

In short, burning trash, animal waste, and wood waste pollute the environment, harm nearby communities' health, and contribute to climate change: a bad investment of public dollars that every Maryland utility ratepayer contributes to. Every Renewable Energy Credit that goes toward a facility that emits greenhouse gasses is a Renewable Energy Credit taken away from a facility that does not - an egregious waste of public money.

Governor Moore has pledged to reach 100% renewable energy by 2035. Climate Solutions Now requires Maryland to have no greenhouse gas pollutants by 2040. We cannot reach either goal if we incentivize dirty energy and allow it to displace clean energy.

For these reasons, we urge a FAVORABLE report for SB590.

Respectfully Submitted,
MoCo CAP Coalition:

350 MoCo
ACQ Climate
Bethesda Green
Biodiversity for a
Livable Climate
Chesapeake Climate
Action Network
Elders Climate Action
Environmental Justice Ministry
Cedar Lane UU Church
Friends of Sligo Creek
Glen Echo Heights Mobilization
Green Sanctuary Committee of
UU Church of Silver Spring
Montgomery County Faith Alliance
For Climate Solutions
One Montgomery Green
Safe Healthy Playing Fields
Sugarloaf Citizens Assn
Takoma Park Mobilization
Environment Committee
The Climate Mobilization
Transit Alternative to Mid County
Highway Extension
Karen Metchis, Bethesda Md
Lucy McFadden, Bethesda Md

SB0590 QVM_Testimony_SUPPORT.pdf
Uploaded by: Molly Finch
Position: FAV

SUPPORT - SB0590 - Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)

Quaker Voice of Maryland

February 27, 2023

Dear Chair Senator Feldman, Vice Chair Senator Kagan and Members of the Committee,

Quaker Voice of Maryland is writing in SUPPORT of **SB0590 - Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)**.

Quaker Voice of Maryland represents Quaker Meetings throughout the State of Maryland. Our faith as Quakers is entwined with our commitment to stewardship and respect for the earth and the right of all to breath clean air regardless of where they live or work.

According to a recent report prepared by Public Employees for Environmental Responsibility (PEER), **"Since 2008, Maryland's renewable energy credits and millions of ratepayer dollars have gone to polluting, carbon-intensive fuel sources, threatening public health and undermining climate goals. In 2020, about 25 percent of Maryland's "clean" energy came from dirty sources."** (Public Employees for Environmental Responsibility, Feb. 2022, https://bit.ly/3mcwxGM)

The impact of incinerators and the use of wood and other dirty or toxic materials for energy generation has proven to have a substantial impact on low income communities where households have fewer choices regarding where to live and work. SB0590 calls for revision of the state's clean energy standard with removal of these types of fuel sources.

We encourage a FAVORABLE report for this essential legislation in order to reach the Governor's target goal of 100 percent clean energy by 2025 in addition to improving the quality of life for citizens living near these pollution generating activities.

Sincerely,

Dona Sorce

Working Group Member, on behalf of Quaker Voice of Maryland
Personal email: dyesorce@gmail.com
Organization email: quakervoicemd@gmail.com

SB0590-EEE-SWA.pdf
Uploaded by: Nina Themelis
Position: FAV

BRANDON M. SCOTT
MAYOR

Office of Government Relations
88 State Circle
Annapolis, Maryland 21401

SB 590

February 28, 2023

TO: Members of the Education, Energy and the Environment Committee

FROM: Nina Themelis, Interim Director of Mayor's Office of Government Relations

RE: Senate Bill 590 – Renewable Energy Portfolio Standard – Eligible Sources – Alterations (Reclaim Renewable Energy Act of 2023)

POSITION: Support

Chair Feldman, Vice Chair Kagan and Members of the Committee, please be advised that the Baltimore City Administration (BCA) **supports** Senate Bill (SB) 590.

SB 590 makes critical climate-focused changes to Maryland's Renewable Energy Portfolio Standards, including redefining the following: (1) qualifying biomass, (2) thermal biomass and (3) Tier 1 renewable sources. This bill better aligns the State of Maryland's Renewable Energy Portfolio Standards with citywide goals to reduce the emission of greenhouse gasses in both the waste and energy sectors. These changes help to prioritize renewable energy subsidies are dedicated to evidence-based renewable energy generation such as solar, wind, and hydro energy, opposed to polluting industries.

Maryland's Renewable Portfolio Standard (RPS) has an explicit goal to "recognize and develop the benefits associated with a diverse collection of renewable energy supplies. The State's RPS Program does this by recognizing the environmental and consumer benefits associated with renewable energy." Through MD's RPS, electricity suppliers are required to meet a minimum amount of renewable energy within their sales. Renewable Energy Credits or RECs, which are classified as Tier 1 or Tier 2 can be traded or purchased by suppliers to claim those credits. REC payments function as subsidies for renewable energy generation and relate to energy output. The bill removes energy derived from high carbon emitting sources (forest-related biomass, animal manure, waste, refuse and gas produced from the anaerobic decomposition of animal waste or poultry waste) as eligible for such subsidies under Maryland's RSP. The bill goals align well with Baltimore City's 2019 Sustainability Plan strategies to reduce emissions, support renewable energy adoption and advance clean air, as detailed below by chapter.

Energy, Strategy 2: Speed the path to decarbonization through increased deployment of renewable energy and electric vehicles.
Action 2: *Advocate for a higher State of Maryland renewable portfolio standard (RPS) as well as affordable pathways to electrification*

Greenhouse Gas Emissions, Strategy 3: Create new programs to reduce greenhouse gas emissions.

Action 2: *Commit to being a "Carbon Neutral City," meaning we would have a net zero impact on greenhouse gas emissions.*
Action 3: *Reduce short-term pollutants, developing an action plan to reduce emissions of short-lived climate pollutants (such as the harmful chemicals found in some refrigerators and air conditioning units), which cause significantly greater warming than carbon dioxide and other greenhouse gases*

Clean Air, Strategy 1: Reduce emissions from industrial operations to reduce harm to people living nearby.
Action 1: *Encourage state-of-the-art pollution controls on all "point source pollution" emitters and improve review of the effect of new permit applications for air pollution sources, particularly those in and near zip codes with high asthma hospitalization rates.*
Action 2: *Work with federal, state, and regional agencies to reduce toxic air emissions from transportation, especially reducing pollution from freight vehicles.*

Including carbon-emitting resources as eligible for Tier 1 renewable energy source in Maryland's RPS is counterintuitive to Baltimore City's 2019 Sustainability Plan strategies, the city's carbon neutrality goals and efforts to curb air pollution. Based on the city's 2020 greenhouse gas inventory, waste incineration, when separated out, comprises roughly 9.5% of all point source emissions in Baltimore. This same industry perennially receives subsidies in state RECs while placing an unjust environmental burden on predominantly African American and low-income residents in South Baltimore. It is imperative state renewable energy subsidies support truly renewable energy, such as solar and wind.

Additional Background:
The State's RPS was first passed in 2004 and subsequently amended several times. SB590 directly addresses 2011 and 2012 amendments to the RPS that added "waste-to-energy and refused-derived fuel facilities", and animal waste as Tier 1 renewable energy sources, respectively. Municipal Solid Waste (MSW) has increased in its overall share of RECs since the bill passed in 2011 from 4% to 14% in 2014, and has since declined to 10% in 2017. According to a 2019 Report from the Maryland Department of the Environment: "*More RECs from MSW have been retired since MSW was converted to Tier 1 status than when MSW was a Tier 2 resource.*" [i] Maryland's current RPS standards provide significant subsidies for highly-carbon emitting activities, causing cleaning renewable energy sources to compete with industries that don't align with climate change goals for Baltimore City.

Impact on Baltimore City Operations
The BRESCO waste incinerator in south Baltimore would be impacted by this legislation as the facility receives RECs for waste to energy/incineration operations. Though the City incinerates some of its solid waste at a facility that could be impacted by the bill, the BRESCO waste incinerator is privately owned. The City currently maintains a contract to manage waste at the BRESCO facility, pays a tipping fee to BRESCO for trash burned at the facility and once the waste is incinerated, BRESCO pays a tipping fee to the City to deposit incinerator ash (a highly toxic byproduct from waste incineration) at Quarantine Road Landfill. The City's wastewater treatment operations rely on anaerobic digestion and industrial composting to dispose of biosolids from the wastewater treatment process. Any RECs currently received for these operations could be impacted by this bill.

SB 590 reflects a multi-year effort to clean up Maryland's RPS, aligns renewable energy regulations with statewide climate and sustainability goals and opens the city up to waste management alternatives that promote environmental justice, zero waste planning and opportunities to capture the value of materials in the city's current waste stream.

For these reasons, the BCA respectfully request a favorable report on SB 590.

[i] Maryland Department of Natural Resources, Power Plant Research Program (PPRP) (2019) Final Report Concerning the Renewable Portfolio Standards as Required by Chapter 303 of the Acts of Maryland General Assembly of 2017. DNR Publication No. 12-091619-167. Available at: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://dnr.maryland.gov/pprp/Documents/FinalRPSReportDecember2019.pdf

SB0590-FAV-DTMG-2-28-23.pdf
Uploaded by: Olivia Bartlett
Position: FAV

Olivia Bartlett, DoTheMostGood Maryland Team

COMMITTEE: Education, Energy, and the Environment

TESTIMONY ON: SB0590 - Renewable Energy Portfolio Standard – Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)

POSITION: FAVORABLE

HEARING DATE: February 28, 2023

BILL CONTACT: Senator Lewis Young

DoTheMostGood (DTMG) is a progressive grass-roots organization with members in all districts in Montgomery County as well as in several nearby districts. DTMG supports legislation and activities that keep all Maryland residents healthy and safe in a clean environment, uplift all members of our communities, and promote equity across all of our communities.

Maryland has one of the highest rates of death from air pollution in the United States. Using dirty energy sources particularly harms vulnerable populations such as the elderly, children, low-income communities, and communities of color. SB0590 will clean up Maryland's Tier 1 Renewal Energy Portfolio Standards (RPS) by retaining subsidies for clean renewable energy sources and removing subsidies for dirty sources, i.e., trash incineration, woody biomass, and factory farm methane gas. The result will be cleaner air and a cleaner environment and new clean energy jobs for Maryland residents.

Trash incineration

Burning trash for energy is even worse for Marylanders' health and our climate than burning coal and oil. Air pollution from waste incinerators increases the risk of pre-term births, cancers of the blood and lung, and emergency room visits. Trash incineration releases toxins, such as dioxins, furans and mercury, nitrogen oxides (NOx), and PM 2.5 (small particulate matter) into the air. NOx contributes to ozone pollution, which can cause chest pain, coughing, and increased risk of asthma attacks, and exposure to PM 2.5 can cause lung damage and increased risk of heart attacks. Furthermore, burning trash creates a toxic ash that still needs to be disposed of. Trash ash needs to be spread out in landfills to decrease the concentration of toxins that leach into the soil, so the ash actually takes up more landfill space than disposal of regular trash in landfills. Burning trash also releases 90% more greenhouse gas emissions per unit of energy than coal.

Trash incineration was only added to Tier 1 of the RPS in 2011; before then, it had been in Tier 2, designed to sunset by 2019. Maryland is the only state in the country that includes burning of trash in Tier 1 "renewable energy" and thus allows incinerator operators to receive millions of dollars in taxpayer subsidies from the state. These Renewable Energy Credits (RECs) help to prop up trash incineration, make it more profitable, stifle new clean energy development, and disincentivize other ways to reduce trash in Maryland.

Burning woody biomass

In current law, "qualifying biomass" means a nonhazardous, organic material that is available on a renewable or recurring basis and is waste material that is segregated from inorganic waste material and is derived from specific sources. However, not all biomass sources can produce "clean" renewable energy. SB0590 will remove two dirty sources of woody biomass: mill residue, except sawdust and wood shavings, and precommercial soft wood thinning, slash, brush, or yard waste. Burning wood for electricity produces as much or more pollution than fossil fuels, including coal. Biomass facilities emit high levels of particulates, nitrogen oxides, carbon monoxide, sulfur dioxide, lead, mercury, and other hazardous air pollutants. As with trash incineration, Maryland should not be subsidizing through the RPS the burning these types of woody biomass, because they represent a polluting source of energy.

Animal waste methane gas

SB590 removes one additional source of biomass from the RPS: gas produced from the anaerobic decomposition of animal waste or poultry waste. Anaerobic digestion is a process whereby microorganisms break down organic material and produce methane as a byproduct. Whether it is drilled out of the ground or manufactured from waste, methane is methane. Burning methane produces carbon dioxide (a greenhouse gas). Methane also leaks, and when it does, it is an even more potent greenhouse gas than carbon dioxide. Anaerobic digestion also leaves behind a digestate that must be disposed of and does nothing to address the human health and environmental impacts of large, confined animal feeding operations.

Including methane gas from anaerobic digestion of animal waste in the RPS will just subsidize yet another greenhouse gas-emitting source of energy. It will also perpetuate the problems of methane leaks from facilities and pipelines and make it harder for Maryland to reduce its dependence on burning gas as an energy source. There are no such facilities in Maryland yet, but developers are proposing to build them across the Delmarva region. Now is the time to take this problem out of the RPS.

In summary, SB0590 will clean up Maryland's RPS by retaining subsidies for clean renewable energy sources and removing subsidies for dirty sources that contribute to pollution that harms our health and produce greenhouse gases that contribute to global warming, i.e., trash incineration, woody biomass, and factory farm methane gas. Enactment of SB0590 will ensure that taxpayer subsidized RECs support truly clean energy and incentivize investment in solar, wind and other clean sources of renewable energy in Maryland. The result will be cleaner air and a cleaner environment and new clean energy jobs for Maryland residents. Enactment of SB0590 will also help Maryland achieve its greenhouse gas emission reduction targets.

Therefore, for all these reasons, DoTheMostGood strongly recommends a **FAVORABLE** report on SB0590.

Respectfully submitted,

Olivia Bartlett
DoTheMostGood Maryland Team
oliviabartlett@verizon.net
240-751-5599

SB590.testimony.Gallagher.pdf
Uploaded by: Patrice Gallagher
Position: FAV

Senate Education, Energy, and the Environment Committee

Re: SB 590 / FAVORABLE

Dear Chair Feldman and members of the Committee:

I'm writing to ask for your support of the Reclaim Renewable Energy Act (HB718/SB590) to eliminate three pollution producers from Maryland's Renewable Portfolio Standard (RPS): trash incineration, factory farm methane, and woody biomass.

I believe most citizens in Maryland would be surprised and disappointed to learn that Maryland's renewable energy dollars are being spent in support of dirty energy sources, rather than going completely toward REAL renewable energy.

In Frederick, many of our residents began their opposition to incineration being included in Maryland's Renewable Portfolio Standard as a result of all that we learned about the negative financial and environmental consequences of trash incineration when a project was proposed to be built here a decade ago.

But besides incineration, there is no question that it is impossible to justify the inclusion of factory farm methane gas and woody biomass in this program that is meant to incentivize renewable energy.

Again, please support HB718 and SB590 to assure that Maryland is subsidizing only REAL clean energy solutions.

Many thanks for your consideration,

Patrice Gallagher

Co-founder, Frederick Zero Waste Alliance

102 W Church Street

Frederick MD 21701

SB590_IndivisibleHoCoMD_FAV_Alexander.pdf
Uploaded by: Peter Alexander
Position: FAV

SB590 – Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)

Testimony before Senate Education, Energy, and the Environment Committee
February 28, 2023
Position: Favorable

Mr. Chair, Mdm. Vice Chair and members of the committee, my name is Peter Alexander and I represent the 750+ members of Indivisible Howard County. Indivisible Howard County is an active member of the Maryland Legislative Coalition (with 30,000+ members). We are providing written testimony today in ***support of SB590***, Reclaim Renewable Energy Act. We appreciate the leadership of Senator Lewis Young for sponsoring this important legislation.

This can keeps getting kicked down the road.

SB590 will eliminate three types of energy from Maryland's RPS: trash incineration, woody biomass, and factory farm methane gas. All three of these pollute the environment, harm nearby communities' health, and contribute to climate change.

Air pollutants from waste incinerators increase the risk of pre-term births, cancers of the blood and lung, and emergency room visits. These adverse health effects unnecessarily result in tens of millions of dollars in healthcare costs in Maryland. Removing trash incineration won't prevent the release of these airborne toxins, but it's incineration shouldn't be subsidized.

Anaerobic digestion of factory farm waste creates methane out of something that would not otherwise have become methane if left as undigested dry waste without mitigating the factory farm air quality problems. Methane, 80-fold more potent than CO2 as a greenhouse gas, exacerbates climate change through gas leaks and its combustion to form CO2. Anaerobic digestion shouldn't be subsidized.

Woody biomass ***seems*** renewable. Trees grow back. However, newly planted trees have far less benefit than a mature tree or a fully-functioning forest. Worse, burning trees releases CO2 immediately. That carbon isn't recaptured until newly planted trees grow to maturity over many decades. Burning woody biomass shouldn't be subsidized.

Subsidizing these seemingly renewable materials takes money away from real renewable energy programs and drives waste markets toward the worst methods of waste management. Subsidies exist to support the things we want, so why are we subsidizing things we don't want?

It's time to stop kicking this can and enact these important alterations to the RPS. Let's put RPS subsidies toward wind and solar power, and let the waste sector work on managing waste.

We respectfully urge a favorable committee report.
Peter Alexander, PhD
Woodbine, MD

SB590 Favorable Testimony.pdf
Uploaded by: Progressive Maryland
Position: FAV

PROGRESSIVE MARYLAND
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Testimony Supporting Maryland Senate Bill 590
Renewable Energy Portfolio Standard - Eligible Sources - Alterations
(Reclaim Renewable Energy Act of 2023)

TO: Chair Feldman, and Members of the Senate Education, Energy, and the Environment Committee
FROM: Christianne Marguerite, Director of Communications at Progressive Maryland
DATE: February 27, 2023
POSITION: Favorable

Dear Chair Feldman and Members of the Committee,

I am writing to express my **strong support for SB590**. The Reclaim Renewable Energy Act will make sure that our subsidies for renewable energy through the Renewable Portfolio Standard are going toward actual renewable energy, not being wasted on things that emit greenhouse gasses.The Reclaim Renewable Energy Act seeks to eliminate three types of energy from Maryland's RPS: trash incineration, woody biomass, and factory farm methane gas. We are in a climate crisis, and we cannot afford to be spending our renewable energy money on facilities that pollute. Now is the time to double down on Maryland's commitment to truly renewable energy and subsidize only facilities that are emissions-free. Please pass the Reclaim Renewable Energy Act so that those funds can support new wind and solar power instead.

Trash incineration in Baltimore City, where I live, has had a disproportionate impact on communities of color living near the incinerator. The air pollution from this source has caused an increase in preterm births, blood and lung cancers, and emergency room visits. Furthermore, the process of burning trash creates dioxins, declared by the World Health Organization as a known human carcinogen and linked to diseases of the immune system, endocrine system, nervous system, and reproductive system.

A Chesapeake Bay Foundation commissioned study identified that fine particulate matter emitted from the Wheelabrator Baltimore "waste-to-energy facility" causes over $55 million in adverse health effects annually. This is especially concerning considering these communities historically had not been granted access to adequate healthcare resources to address these problems or the equitable financial means to cover medical expenses.

In light of this evidence, it is clear that eliminating subsidies for trash incineration from Maryland's RPS is essential for keeping these communities safe and healthy against further harm from polluting energy sources. Additionally, it would allow local governments to focus more on methods of waste management that are better for the environment than incineration and landfill.

I’m looking to your leadership to help put an end to these toxic subsidies so we can create a brighter future. For these reasons, **I respectfully urge a favorable report on SB590** to stop sending Maryland’s renewable energy money to facilities that are harming our communities. Thank you.

Sincerely,
Christianne Marguerite

SB0590 Testimony.pdf
Uploaded by: Raychel Gadson
Position: FAV

Dear Chair Feldman and Members of the Committee,

As a resident of district 43A and a Maryland taxpayer, I am writing to express my strong support of SB590, the Reclaim Renewable Energy Act. This bill will make sure that our subsidies for renewable energy through the Renewable Portfolio Standard are going toward actual renewable energy, not being wasted on things that emit greenhouse gasses. For several decades, researchers have documented the disproportionate effects of the climate crisis on low-income people and people of color. If Maryland wants to be a leader in environmental justice, we cannot afford to be spending our renewable energy money on facilities that pollute. I know that politics move slowly, but environmental destruction doesn't, and we are constantly playing catch up. If we want a sustainable future for Maryland residents, we MUST commit to truly renewable energy and subsidize only facilities that are emissions-free. Private industry will continue to prioritize profits over our shared environment and the people who are most harmed by their pollution, but our state government HAS TO BE BETTER.

This bill will eliminate three types of energy from Maryland's RPS: trash incineration, woody biomass, and factory farm methane gas. All three of these pollute the environment, harm nearby communities' health, and contribute to climate change. Subsidizing them takes money away from the real renewable energy that we need, and it also tilts waste markets toward the worst methods of managing our waste. Subsidies exist to support the things we want, so why are we subsidizing things we don't want in our communities? Let's put those subsidies toward wind and solar power, and let the waste sector work on managing waste.

Please pass the Reclaim Renewable Energy Act so that those funds can support new wind and solar power instead. Use our tax dollars to encourage creativity and innovation in the energy sector. Become an environmental leader instead of accepting the status quo. Most importantly, show Maryland residents that our state is willing to try new things to support our health and well-being, because residents all over the state have made our commitment clear. Thousands of people have invested in local solutions and alternatives that build environmental health - solar energy, water and land preservation, composting and small farming, and sustainable homes - all that's missing is a state that wants to work with us!

Thank you for your time and consideration,
Raychel Gadson

Wolf_MD_RPS_2023.docx.pdf
Uploaded by: Rebecca Wolf
Position: FAV

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Rebecca Wolf
Food Policy Analyst
rwolf@fwwatch.org

Committee: Education, Energy, and the Environment
Testimony on: SB590
Position: Favorable
Hearing Date: February 28, 2023

Chair Feldman, Vice Chair Kagan and members of the committee. My name is Rebecca Wolf and I am writing in support of SB590 on behalf of the nonprofit Food & Water Watch and our 40,000 Maryland members.

The Renewable Portfolio Standard (RPS) is an important tool to help Maryland meet ambitious climate goals, but it has been hijacked as a waste management subsidy on behalf of Maryland ratepayers. The RPS was established for the purpose of speeding our transition to renewable energy with both "long-term decreased emissions and a healthier environment to the public at large".[1] Currently, the RPS has subsidies for sources that produce more carbon than fossil fuels per unit, and also threaten the health of Marylanders.[2] These dirty sources increasingly occupy space that can and should be filled with clean renewable energy like wind, solar, and geothermal.[3]

It is time to clean up the RPS by removing definitions that bring more waste into communities, like methane generation from anaerobic digestion. In the anaerobic digestion of factory farm waste, animal waste, fats, solids, oils, and other materials are fed into a digester where it is broken down by microorganisms that can only thrive in the absence of oxygen.[4] Since factory farms produce unmanageable volumes of waste, digester facilities are often touted as a solution to the environmental issues that waste creates. However, this is a false promise - sending animal waste to a large, regional digestion plant creates methane, but does nothing to mitigate the significant air and water quality issues associated with factory farms.[5]

Digesters do not get rid of waste, in fact, they concentrate it.[6] They do not stop nutrient pollution like phosphorus run-off, in fact they could make it worse.[7] They guarantee the continued production of waste - because they must be fed to operate.[8] They bring waste into communities. And no matter the source, methane combustion utilizes leaky infrastructure and releases CO_2 into the atmosphere.[9, 10]

Leaving biogas in the RPS has real, immediate consequences for our climate goals and communities across the region. Although opponents of this bill tout biogas as a "win-win" to waste and energy problems, biogas in the RPS increases emissions and waste in residential neighborhoods. There are real threats to not passing SB590 this year:

1. **Generating new methane and CO^2 emissions:** Poultry manure does not inherently produce methane, management systems and digesters generate it.[11] Anaerobic digesters must be fed with waste to first produce biogas, and then refine it into methane and CO_2. In the proposed Bioenergy project in Sussex County Delaware, the company plans to import waste from DE, MD, VA and PA to feed a large, expensive regional digester in a residential community. They hope to take processing facility fats, oils, grease and other solids (all of which is very high in nutrient loads and biochemical oxygen demand), wood materials, and hatchery waste in addition to poultry litter. They also plan to **directly release CO_2 into the atmosphere** as part of the methane refining process.[12]

2. **Relying on methane, guaranteeing ammonia pollution:** The prefix "bio" before biogas doesn't make it clean — it's still composed of methane (the primary constituent of fracked gas) and other pollutants.[13] Methane is nearly 90 times more powerful a greenhouse gas than carbon dioxide over a 20-year period.[14] Plus, burning biogas releases CO_2 and other poisonous gases, including nitrogen oxides, ammonia and hydrogen sulfide.[15] On top of this, the transport of biogas and materials to and from digesters still uses massive amounts of toxic diesel fuel.[16] In fact, recent studies show that composting digested material results in increased ammonia emissions when compared with composting undigested material.[17] Alarmingly, ammonia emission from livestock operations alone account for over 12,000 premature deaths each year in the United States.[18]

3. **Promoting new gas infrastructure:** To keep biogas in the RPS would promote new gas infrastructure. The production of methane from organic matter through anaerobic digestion has been used as an excuse for expanding and entrenching liquified natural gas (LNG) infrastructure.[19] During a MD Board of Public Works meeting on July 1, 2020, several witnesses used the increasing availability of so-called renewable natural gas (RNG) as reason why the Eastern Shore Pipeline should be permitted despite concerns from advocates.[20] In the proposed Bioenergy project in Sussex County Delaware, the company expects up to 199 gas tanker trucks trips a day to carry the biomethane to the 500-mile Eastern Shore Natural Gas pipeline network in Maryland.[21]

4. **Relying on a system that leaks methane:** Studies show that in 2015, leaks along the natural gas supply chain were approximately 60% higher than the U.S. Environmental Protection Agency inventory estimate.[22] On the Eastern Shore, a 2-15% leak rate from the major directed biogas projects could release up to 5,187 metric tons of methane –

comparable to the greenhouse gas emissions from almost 100,000 gas-powered cars on the road all year.[23]

5. **Intentionally tying waste production to energy**: Research shows that renewable natural gas could be even more climate intensive than fossil natural gas, "particularly if a wave of facility buildouts encourages 'intentional' waste production".[24] While opponents of this bill have denied this possibility in the past, it's a fact that once a large digester is built, it must be fed constantly.[25] In Northern Ireland, the introduction of digester subsidies was an intentional facilitation of the expansion of poultry factory farms.[26]

6. **Stranding assets for Maryland ratepayers to bail out:** The Maryland Office of Public Council released a report last year cautioning that the replacement and expansion of gas infrastructure will cause gas delivery costs to skyrocket in Maryland. They note, "Because we need to address climate change, to which fossil gas contributes, gas utilities themselves face the possibility that their investments will become obsolete and uneconomic. If that happens, the public may be asked to bail them out."[27] Since the construction of biogas facilities is extremely costly, they are generally not profitable without taxpayer or ratepayer supported subsidies and incentives.[28] The inclusion of biogas in the RPS provides an unwanted financial incentive to add new greenhouse gas emitting technology to our grid under the guise of renewable energy - all on the public's dime and at the public's risk.

Currently, the Maryland RPS only supports two biogas facilities in Ohio. One was sued by the state in 2016 after numerous Ohio EPA inspections and over 250 citizens complaints.[29] There are currently no facilities in Maryland that receive Maryland RPS RECs, but that could change. The aforementioned proposed facility in Delaware would be eligible for support from the Maryland RPS.

Luckily, the question before us today is simple - factory farm biogas is not a Tier 1 definition of renewable energy. It does not contribute to a healthier environment or long-term decreased emissions. We are at the same point now with looming entrenchment in the RPS that trash incineration was 10 -15 years ago. Inaction on this bill has consequences and we have the opportunity to remove waste management from entanglement with energy subsidies. I urge favorable support of SB590 and thank you for your thoughtful consideration.

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Further Resources

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SB 590_Maryland Catholics for Our Common Home_FAV.
Uploaded by: Robert Simon
Position: FAV

Maryland Catholics for Our Common Home

Responding to the cry of the Earth and the cry of the poor.

Hearing Before Senate Education, Energy, and the Environment Committee
Maryland General Assembly
February 28, 2023

Statement of Support (FAVORABLE)
of Maryland Catholics for Our Common Home on
SB 590 – Renewable Energy Portfolio Standard - Eligible Sources - Alterations
(Reclaim Renewable Energy Act of 2023)

Maryland Catholics for Our Common Home (MCCH) is a lay-led organization of Catholics from parishes in the three Catholic dioceses in Maryland: the Archdiocese of Baltimore, the Archdiocese of Washington, and the Diocese of Wilmington. It engages in education about, and advocacy based on, the teachings of the Catholic Church relating to care for creation. MCCH is a grassroots voice for the understanding of Catholic social teaching held by a wide array of Maryland Catholics—over 350 Maryland Catholics have already signed our statement of support for key environmental bills in this session of the General Assembly—but should be distinguished from the Maryland Catholic Conference, which represents the public policy interests of the bishops who lead these three dioceses.

MCCH would like to express our strong support for passage of Senate Bill 590 – Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023). As Catholics, we see a strong link between care for God's creation and care for the poor, as both are an integral part of our faith. That means we endeavor to be on the side of the poor as they are affected by public policies. In his 2015 encyclical, entitled *Laudato Si': On Care for Our Common Home*,[1] Pope Francis calls for a comprehensive response to the threats from climate change, including "an urgent need to develop policies so that, in the next few years, the emission of carbon dioxide and other highly polluting gases can be drastically reduced, for example, substituting for fossil fuels and developing sources of renewable energy." (no. 26) *Laudato Si'* also contains a call to "integrate questions of justice in debates on the environment, so as to hear both the cry of the earth and the cry of the poor" (no. 49).

Senate Bill 590 responds to both the cry of the poor and the cry of the Earth by eliminating public subsidies under Maryland's Renewable Portfolio Standard for three types of dirty energy: trash incineration, woody biomass, and factory-farm methane gas. All three forms of these dirty, albeit renewable, energy sources pollute the environment, harm nearby communities' health, and contribute to climate change. Subsidizing them takes money away from investments in the clean, renewable energy technologies that we need and that are increasingly available to be quickly scaled up. In addition:

- providing public subsidies for incinerators tilts waste markets toward the worst method of managing our waste (and there are better waste management strategies that are being proposed in other legislation before the General Assembly this year);

[1] The English text of the encyclical, to which the paragraph numbers in the following parentheses refer, can be found at: https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.

- burning woody biomass turns the carbon sinks of forests and woodlands into climate problems; and
- giving incentives to factory-farm digesters produces more methane and this new infrastructure commits us to a future of methane production and combustion, when we need to focus in the coming decades on reducing the production of all greenhouse gases.

There is an environmental injustice at the heart of the present system. Private industries pumping greenhouse gases and particulate pollutants into the air do not need subsidies to remain in business and be profitable. So long as Maryland continues to subsidize these dirty energy sources, it remains complicit in prioritizing private corporate profits over the health of Maryland citizens, the planet, and all its creatures. All God's creatures will suffer the ravages of an overheated planet, including species extinction and rising sea levels that will threaten Maryland shorelines; and in far too many cases the poorest among us are condemned to live beneath or downwind of plumes of toxic emissions, suffering higher rates of asthma or being exposed to cancer-causing emissions.

This bill will ensure that public subsidies for renewable energy through the Renewable Portfolio Standard go toward actual *clean* renewable energy, and are not wasted on energy sources that emit greenhouse gases and result in harmful pollution.

For these reasons we strongly urge your support for this bill. Thank you for your consideration of our views and our respectful request for a **favorable** report on Senate Bill 590.

SB 590 - National Aquarium - FAV.pdf
Uploaded by: Ryan Fredriksson
Position: FAV

NATIONAL AQUARIUM®

Date: February 28, 2023
Bill: SB 590 Reclaim Renewable Energy Act of 2023
Position: Favorable

Dear Chair Feldman and Members of the Committee:

The National Aquarium respectfully requests a favorable report for **SB 590 Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)**, which correctly redefines Tier 1 renewable sources of energy.

Combatting climate change is one of the National Aquarium's three strategic conservation goals. We do this through a holistic, solutions-focused approach, which includes translating ocean and climate science, building resilience through community empowerment, implementing nature-based solutions, and reducing our own carbon footprint. The National Aquarium recently committed to achieving net-zero greenhouse gas emissions by 2035. Our ability to reach net-zero depends on the state increasing its renewable energy using sources that are actually clean and renewable.

The current structure of the RPS funnels utility ratepayers' money to energy sources that not only produce more carbon than fossil fuels per unit of energy, but also threaten the health of Marylanders. These are not the objectives that the state's clean energy plan is meant to achieve. Yet the incentive created by including these dirty sources as "renewable" in our RPS allows them to increasingly occupy space on our grid that can and should be filled with clean renewable energy like wind and solar. Maryland ratepayers should not continue to spend millions of dollars on Renewable Energy Credits (RECs) inappropriately provided to trash incineration, factory farm methane and woody biomass.

Trash incineration is also linked to the plastic pollution crisis. Municipalities in Maryland, like others around the nation and the world, are unable to keep up with the increasing production of plastic and the resulting waste that primarily ends up in the environment, languishing in landfills or is incinerated. Incinerating trash creates greenhouse gas emissions as well as harmful local air pollution, and disincentivizes better waste management alternatives like source reduction, promoting reusable options, recycling and composting. To make matters worse, trash incinerators are often sited in underserved and overburdened communities. It is long overdue for the state to stop subsidizing smokestacks in communities where environmental justice must be a priority.

It is incumbent that governments at every level focus on reducing greenhouse gas emissions rapidly while prioritizing a just transition away from fossil fuels. Maryland is a climate leader, however incentivizing energy derived from trash incineration and other polluting methods stands in contrast to the state's commitment to environmental justice and ambitious climate goals.

We urge the Committee to issue a favorable report on SB 590.

Contact:
Ryan Fredriksson
Vice President, Government Affairs
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Via testimony SB590.pdf
Uploaded by: Sara Via
Position: FAV

Feb. 26, 2023

To: Senate Education, Energy and the Environment Committee

Re: Testimony in support of SB590

Position: SUPPORT

From: Dr. Sara Via, Professor and Climate Extension Specialist,
University of Maryland College Park
svia@umd.edu

Sara Via

I am a resident of District 9B and a Maryland electricity ratepayer. I strongly support SB590 because it will stop the subsidy of highly polluting dirty energy derived from incineration of trash and burning landfill methane, biogas (from anaerobic digestion) or woody biomass. Every year, millions of RPS dollars from Maryland pay out-of-state companies to generate dirty power. If these funds were used instead to support clean renewable energy in-state, we could create jobs for hard-working Marylanders while advancing Maryland's climate goals.

It's crucial to distinguish "renewable energy" from "clean energy". Using these terms interchangeably has been an ongoing problem in the RPS and this is the crux of the issue addressed in SB590. Burning trash, landfill methane, biogas from poultry litter or wood biomass is technically "renewable" since there is a seemingly endless supply of trash, poultry litter and wood. However, these sources of energy are by no means "clean," and they should not be subsidized by Maryland ratepayers.

In the initial statute defining the RPS, one of the assertions was that that ensuring a certain proportion of renewable energy in the overall portfolio would benefit Marylanders through " LONG-TERM DECREASED EMISSIONS, (and) A HEALTHIER ENVIRONMENT." At that time, it may have seemed reasonable to think that energy from the renewable sources allowed in Tier 1 would be cleaner than electricity made by burning fossil fuels. Now we know that isn't true. In some cases, generating power with these dirty Tier 1 methods releases even more hazardous air pollution than a coal-fired power plant without reducing emissions of climate-altering carbon dioxide[1]. Why would we subsidize dirty energy that damages the environment and reduces the health of Marylanders and call it a climate solution?

Incinerating municipal solid waste releases even more hazardous air pollution than burning coal—17x more mercury, 5x more NOx, and twice as much carbon monoxide (CO)[1]. A large fraction of municipal waste is plastic, and we know that burning plastic releases some very hazardous volatiles and particulates into the air. The trash problem that is so often used to justify incineration can be solved so much more sustainably by implementing waste reduction programs and disallowing all organic material (food and yard waste) from landfills and diverting it to greatly expanded modern composting facilities. These are key steps toward the circular economy we require for a sustainable future.

[1] Public Employees for Environmental Responsibility. 2022. *Maryland's Clean Energy Program Isn't So Clean.* Accessed 2/26/23 from https://peer.org/wp-content/uploads/2022/02/PEER-Report-Maryland-RPS-2.21.22-Final.pdf.

Yes, recycling is currently inefficient and inadequate and far too much food and yard waste goes to landfills. But recycling is not only a problem we CAN solve, it's a problem we MUST solve to build the circular economy we require for the future. Subsidizing incineration makes it much harder for communities to do the hard work of dealing with trash sustainably by devising and implementing programs to reduce the overall volume of waste, recycle effectively and compost food and yard waste. We can't keep throwing stuff away and then pretending to deal with it through incineration.

Decomposition of organic materials in landfills and anaerobic digestion of manure and poultry litter generates methane that can be burned for electricity, but there are significant drawbacks. This methane must first be refined, which itself requires electricity. Also, methane leakage is inevitable, releasing this powerful greenhouse gas into the atmosphere. Finally, using this methane for power justifies and enhances the natural gas infrastructure we need to move past. Why not eliminate this source of methane all together and turn food waste, manure and poultry litter into a valuable soil amendment in large-scale commercial composting facilities? That's a real solution that will work in the sustainable future we are trying to build. Continuing to subsidize landfill methane and biogas moves us backward by reducing the likelihood that real solutions will be developed and implemented at scale.

Burning woody biomass releases tremendous amounts of hazardous volatile and particulate matter, with major health impacts. Burning wood strikes people as a good solution because trees are natural and can be regrown. However, burning wood releases 187 hazardous volatiles as well as dangerous particulate pollution[2], and the health costs of smoke from burning wood are becoming all too clear. Finally, harvesting trees to burn for energy is not as renewable as it seems because it causes an immediate loss of sequestered carbon that takes decades for replanted trees to replace[3].

Subsidizing these forms of dirty energy with RPS funds is not a climate solution. It pollutes the air and water, damages human health, speeds climate change, and prolongs our reliance on the infrastructure of natural gas. In my opinion, companies that receive RPS funds for generating dirty energy are "gaming the system" in the worst way. You, our Maryland lawmakers, can stop this misuse of funds by restricting Tier 1 RPS subsidies to clean renewable energy like wind and solar.

Allowing dirty energy to be subsidized in the RPS is also deceitful. Maryland ratepayers pay for the RPS **thinking** that they are helping to curb climate change and speed the transition to clean energy. Instead, they are spending millions each year to enrich out-of-state companies that increase deadly air pollution and speed up climate change.

Maryland is better than this. As our legislators, you have the power to change the RPS so that it will function as it should. By using RPS funds to subsidize only *bona fide* clean energy sources like wind and solar, this legislation will help to speed the energy transition we so desperately need.

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[2] Partnership for Policy Integrity. *Air Pollution from Biomass Energy.* Accessed 2/26/23 from https://www.pfpi.net/air-pollution-2/.

[3] Via, S. 2021. *Increasing Soil Health and Sequestering Carbon in Agricultural Soils: A Natural Climate Solution*. The Izaak Walton League of America and the National Wildlife Federation. Available at https://www.iwla.org/soils-agriculture/soilhealthreport.

Moreover, once the cost of dirty energy from incinerators and landfill methane is no longer artificially lowered by RPS funds, it will be easier for communities to justify the cost of real climate solutions for waste. They can develop workable recycling programs and efficient ways to divert food and yard waste from landfills into composting facilities. The valuable soil amendment produced will enrich gardens and farmland and even increase the resilience of Maryland agriculture to climate change[3].

The bottom line is that we simply don't need to generate energy anymore by burning trash, "biogas," methane refined from landfills or wood biomass. Technology for wind and solar is advancing so quickly and becoming so inexpensive that continuing to burn ANYTHING to make electricity is simply regressive.

I look forward to the expansion of wind and solar in Maryland and the production of thousands of good-paying jobs in the clean energy industry for hard-working Marylanders.

Please help to facilitate the clean energy transition in Maryland by halting the misuse of RPS funds on dirty energy. Remove incineration, methane from landfills or anerobic digestion and wood biomass from Tier 1.

Thank you!

SB 590 FAV Energy and Environment Moore LS23.pdf
Uploaded by: Shannon Moore
Position: FAV

Jessica Fitzwater
County Executive

FREDERICK COUNTY GOVERNMENT

DIVISION OF ENERGY & ENVIRONMENT

Shannon Moore, Director

SB 590– Reclaim Renewable Energy Act

DATE:	February 27, 2023
COMMITTEE:	Senate Education, Energy, and the Environment Committee
POSITION:	Support
FROM:	Shannon Moore, Director, Division of Energy and Environment

Thank you for your consideration of SB 590 – Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023). As the Director of the Division of Energy and Environment in Frederick County, I urge the committee to give SB 590 a favorable report.

Despite good intentions of the state's Tier I Renewable Portfolio Standard to reduce carbon dioxide equivalent emissions and increase carbon neutral energy sources, the program subsidizes pollution, to include particulates and ground level ozone precursors. These emissions, in turn, create environmental justice concerns for populations with asthma and lung disease.

For these reasons, Frederick County is in support of SB 590– Reclaim Renewable Energy Act.

Thank you for your consideration. On behalf of Frederick County Government, I urge a favorable report.

Shannon Moore
Director
Division of Energy and Environment
Frederick County Government
30 N. Market St., Frederick, MD 21701
(O) 301.600.1413 (C) 240.608.7406

Shashawnda Testimony.pdf
Uploaded by: Shashawnda Campbell
Position: FAV

Dear Chair Feldman and Members of the Committee,

As a resident of *District* 46 and *a Maryland ratepayer and a representative of South Baltimore Community Land Trust and a resident concerned about climate change because of the effects it has on human health.* South Baltimore serves as a dumping ground for the city and region - burning single use-plastics and other mixed waste at a 35 year old trash incinerator located in frontline environmental justice (EJ) communities. South Baltimore is one of the highest zip codes with the highest levels of toxic air emissions in the nation. We really need a just transition to zero waste and to do that we need the state to stop giving RECS subsidies to trash incinerators.

That is why I am writing to express my strong support of SB590, the Reclaim Renewable Energy Act. This bill will make sure that our subsidies for renewable energy through the Renewable Portfolio Standard are going toward actual renewable energy, not being wasted on things that emit greenhouse gasses. We are in a climate crisis, and we cannot afford to be spending our renewable energy money on facilities that pollute. Now is the time to double down on Maryland's commitment to truly renewable energy and subsidize only facilities that are emissions-free.

Baltimore City leadership have made a commitment to moving from burning to developmenting new infrastructure such as composting which would address 40% of the waste that is currently being burned. The problem is all of Maryland subsidies are going to dirty energy and not being used to develop and support things like wind and solar power. The BRESCO incinerator has been in Baltimore for 35 years and just began to get subsidies from the RPS in 2011 so this bill will not shut them down. This bill will just assure we are supporting clean energy and not dirty energy like trash incineration.

This bill will eliminate three types of energy from Maryland's RPS: trash incineration, woody biomass, and factory farm methane gas. All three of these pollute the environment, harm nearby communities' health, and contribute to climate change. Subsidizing them takes money away from the real renewable energy that we need, and it also tilts waste markets toward the worst methods of managing our waste. Subsidies exist to support the things we want, so why are we subsidizing things we don't want in our communities? Let's put those subsidies toward wind and solar power, and let the waste sector work on managing waste.

Please pass the Reclaim Renewable Energy Act so that those funds can support new wind and solar power instead.

SB590 Testimony SirJames.pdf
Uploaded by: SirJames Weaver
Position: FAV

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PROGRESSIVE MARYLAND
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Testimony on Maryland Senate Bill 590
Reclaim Renewable Energy Act

TO: Chair Feldman, Vice Chair Kagan, and members of the committee
FROM: SirJames, Member of Progressive Maryland
DATE: February 28, 2023
POSITION: Favorable

Thank you for the opportunity to offer testimony in support of the Reclaim Renewable Energy Act. Progressive Maryland (PM) is a grassroots nonprofit organization with regional chapters from Frederick to the Lower Shore and more than 100,000 members and supporters who live in nearly every legislative district in the state. In addition, there are dozens of affiliated community, faith, and labor organizations across the state that stand behind our work. Our mission is to improve the lives of working families in Maryland. **Please note our strong support for SB590**. For 38 years a tall-rocket-shaped poisonous facility, that looks over interstate 95, gets fed 2,250-tons of Baltimore city's trash per day, and violently spews eternal death from its mouth onto the black souls of south Baltimore. This part of the city has become "cancer alley."

As a PM Environmental Justice Organizer, based in Baltimore D 46, I've had conversations with Cherry Hill (CH) community members concerning the effects of the Wheelabrator trash incinerator: Baltimore's top polluter.On a cloudy and windy day in CH, in mid January, I spoke to a 33-year old mother about the incinerator, at her doorstep. That said, she mentioned having a 2-year-old child born with a heart defect; as we continued our conversation, her eyes lit up like diamonds, once she learned that her utility bills, each month, helped maintain the incinerator's wealth. Her body jerked suddenly, as she began to understand the health impacts of living close to a poisonous incinerator that could, one day, potentially take the life of her child.

A noted expert of the analysis of human health effects of air pollution, Dr. George D. Thurston, in his 21-page study authorized by the Chesapeake Bay Foundation, reported the incinerators responsible for 5.5 deaths per year. All told, the incinerator's round-the-clock burning of trash has placed South Baltimore communities in roach-like conditions, and paying utilities to give their child cancer one day. With each breath in cancer valley life expectancies are reduced, I strongly urge you to support SB590.

For these reasons, **we respectfully urge a favorable report on SB590**.

SirJames Weaver

SB0590Testimony22723.pdf
Uploaded by: Sonia Demiray
Position: FAV

CLIMATE COMMUNICATIONS COALITION

Statement in support of SB0590 /HB0718

Reclaim Renewable Energy Act

February 27, 2023

Thank you for this opportunity and a special thank you to Senator Lewis Young for addressing the RPS system.

My name is Sonia Demiray. I am a Frederick County Resident and the co-founder of the Climate Communications Coalition. I am also deeply involved in local forestry and alarmed by the fuzzy definitions and current industrial and commercial forestry goals across the State.

I am here today to oppose the subsidies for wood or woody biomass for energy. Wood composes 3.4% of the current Renewable Energy Portfolio and I respectfully ask you to remove it, because it is not green, clean, renewable, or sustainable. By the way: everything in the field of forestry is being called 'sustainable' and 'renewable' while many activities clearly are not.

1. The outdated 2009 Sustainable Forestry Act wrongly defines biomass as clean & green energy: Woody biomass (better known as wood) is not a clean source of energy. When burned, it releases decades or centuries of stored pollution back into the atmosphere. Where there is fire, there is smoke which by definition is pollution- the origin of the word smog. But it gets worse: producing woody biomass for energy (usually in the form of pellets) adds pollution from logging the trees, transportation, processing, manufacturing, and of course the final burning of wood. In fact, burning wood for electricity produces as much or more pollution as fossil fuels, including coal. Biomass facilities emit high levels of particulate matter (PM), nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO2), lead, mercury, and other hazardous air pollutants. In addition, the dust from the pellet manufacturing facilities produce dangerous air pollutants including particulate matter and volatile organic compounds.

2. Renewable: The biomass energy industry likes to state that it is renewable because trees grow back. Trees (especially integral forest ecosystems) as they grow, are the single most effective and currently working mechanism we have available to scrub our air clean and sink the pollution back into the soils. This is why we are planting one trillion trees worldwide by 2030. However, it will take these trees decades and centuries to be as effective as the ones being cut down for burning. So are they truly renewable? NO- not in the time-frame we have available to us in this climate emergency – i.e. Maryland has 12 years to reach Net Zero, not the centuries we need for forest ecosystems to reintegrate.

In fact, the easiest and best way to draw down pollution is by protecting existing forests. This proforestation is also what the International Panel on Climate Change IPCC is advocating for. A mature tree is far better at drawdown, sequestration and storage than a new seedling. And integral forest ecosystems are far more effective than newly afforested fields for carbon sinks (let alone biodiversity, water, soils, etc.) So don't cut down the best tool we have, mature trees and forests, and pretend that the newly afforested field is just as good. A tiny seedling cannot absorb the same as an old oak.

3. Industry: the 2009 Sustainable Forestry Act states that "Sustainable Forestry produces woody biomass" that is correct. There is waste wood involved in sustainable forestry practices such as invasive species removal, thinning for fire breaks, etc. The resulting waste wood must be encapsulated and stored- i.e. building material, cellulose, etc. but we must refrain from burning it to release stored pollution back into the atmosphere, which worsens climate change. Sustainable forestry practices are relatively small in scale and very well managed by experts. They are important and much needed, mainly in forests that are close to developed and built up areas. Forest products are also important: we use timber and furniture, and Maryland's forest product industry is bound to organically and slowly grow with the increased afforestation and increased storm damage.

That said, there is a current concerted effort to dramatically expand the Maryland forest product industry to a much larger scale. Current afforestation goals and maturing forests have drawn the attention of timber trade which is being fostered among local organizations and government agencies. A major part of this is biomass energy due to its profitability -especially for export. When you invite woody biomass energy industry, the byproduct quickly becomes the product – as we have seen across the South East (a comprehensive documentary about this can be watched for free online here) and anyone who has visited the Carolinas or Florida lately knows about the damage. So let's not invite a polluting and destructive industry to settle in among us and syphon away important investments that should go to truly renewable energy.

Some may think that the Climate Communications Coalition is being alarmist, but the facts paint a picture: The Sustainable Forestry Council, supported by the MD DNR, wants to see 2-3 of biomass energy operations across Maryland; the Maryland Forestry Economic Adjustment Strategy (MFEAS) is recommending that industry establish their polluting plants in Opportunity Zones (p.21, MFEAS.); the strategy highlights the Port of Baltimore for its easy access to international trade (p. 18 MFEAS); the strategy calls for "*all* wood and wood residue to be qualified as renewable biomass" (p. 97 MFEAS); the MD Clean Energy Center invited DRAX – one of the biggest clear cutters highlighted in the above mentioned documentary – to host webinars about the benefits of biomass for Maryland audiences; etc.

Providing subsides for woody biomass not only adds unwanted pollution and encourages logging of the only effective mechanism we currently have to draw down pollution. It also opens the door to industrial scale devastation and pollution at a time where the world, including Maryland, must move quickly to stop emitting pollutants to the atmosphere.

We urge you to withdraw any subsidies to woody biomass for energy. We also hope that you take a good look at MFEAS and at the 2009 Sustainable Forestry Act.

Thank you!

www.ClimateCC.org
106 North Market Street. Frederick, MD 21701

D'Alonzo SB590 Testimony.pdf
Uploaded by: Sophia D'Alonzo
Position: FAV

PROGRESSIVE MARYLAND
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Testimony on Maryland Senate Bill 590
Reclaim Renewable Energy Act

TO: Chair Feldman, Vice Chair Kagan, and members of the committee
FROM: Sophia D'Alonzo, Member of Progressive Maryland
DATE: February 28, 2023
POSITION: Favorable

Thank you for the opportunity to offer testimony in support of the Reclaim Renewable Energy Act. Progressive Maryland is a grassroots nonprofit organization with regional chapters from Frederick to the Lower Shore and more than 100,000 members and supporters who live in nearly every legislative district in the state. In addition, there are dozens of affiliated community, faith, and labor organizations across the state that stand behind our work. Our mission is to improve the lives of working families in Maryland. Please note our **strong support for SB590**.

I am an undergraduate student at the University of Maryland studying Environmental Science and Policy. I'm a member of 17 for Peace and Justice, an environmental justice group on campus, and MaryPIRG, a student-led activism organization. Within MaryPIRG, I lead a campaign called 100% Renewable, through which we advocate for the equitable transition to renewable energy on campus and in our surrounding communities. I also conduct research with the Center for Community Engagement, Environmental Justice, and Health (CEEJH), specifically focusing on air pollution in BIPOC and low-income communities.

Including waste material in the RPS as a qualifying biomass for Tier 1 renewable energy credits has created a state-incentivized environmental justice crisis. The Wheelabrator Incinerator in Baltimore, Maryland is the city's largest stationary source of air pollution, emitting dangerous pollutants like dioxin. Dioxin is an extremely toxic chemical group that can harm human reproductive and developmental health. The EPA EJScreen indicates that the surrounding areas of the Incinerator are 95-100 percentile for Air Toxics Cancer Risk, 80-90 percentile for Air Toxics Respiratory HI, and predominantly POC.

Renewable energy sources that emit toxic chemicals and harm minority and low-income communities should never be incentivized. I urge the committee to consider alternative waste-management strategies.

For these reasons, **we respectfully urge a favorable report on SB590**.

Sophia D'Alonzo

SB0590 - Renewable Energy Portfolio Standard - El
Uploaded by: Staci Hartwell
Position: FAV

NAACP
Maryland
STATE CONFERENCE

February 27, 2023

Committee| Education, Energy, and the Environment
Testimony | SB0590 - Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)
Position | Favorable
Hearing Date | February 28, 2023

Dear Chairman Feldman and Distinguished Committee Members,

I am Staci Hartwell, Chair of the Environmental and Climate Justice Committee of the NAACP Maryland State Conference. Our State Conference supports SB0590 which will ensure Maryland is producing renewable energy from truly renewable sources.

Burning trash does not produce clean, green, nor renewable energy.

Here in Maryland, we have two waste incinerators- one in Baltimore and another in Montgomery County. Baltimore's Wheelabrator Trash Incinerator is in the heart of Baltimore City, and it burns almost 2,250 tons of waste per day[1] the lion's share of the waste-to-energy production in our state. The harmful process of burning household and commercial waste emits carbon dioxide, particulate matter, lead, cadmium, mercury, and other toxic substances into the air. Baltimore's facility has been documented to cause a long list of adverse health impacts for residents in and near the area including decreased lung function, increased numbers of asthma and heart attacks, more frequent emergency department visits, and 5.5 additional deaths per year.[2] Incineration by-products have even been linked to higher rates of non-Hodgkin lymphoma, breast cancer, testicular cancer, and preterm births.[3]

State funding of this harmful, toxic, polluting facility is a tremendous environmental injustice. Environmental justice groups have been advocating for this change for years. Even last year, there were many pieces of legislation - 2022 HB11 and the Climate Solutions Now Act (CSNA) - that were supposed to remove this dirty facility from the state's list of renewable sources. If we are to achieve the goals set forth in CSNA, we cannot continue to wait on this change while our state is already in transition making important strides towards a clean energy system.

We must act now. We must be resolute. We must be brave.

---

[1] "Waste of Energy" Grist. December 12, 2018. link
[2] Written Report of George D. Thurston, "Public Health Impacts of Air Emissions from the Wheelabrator Facility". November 20, 2017. link
[3] "Hazardous waste and health impact: a systematic review of the scientific literature" L. Fazzo et al. October 11, 2017. link

Tier 1 sources should only include truly renewable energy sources such as solar, wind, hydro, and geothermal power. We must “belly up” and make the transition; we must face reality, make hard decisions, and act.

Therefore, on behalf of the NAACP Maryland State Conference, I request a favorable report on SB0590.

Respectfully submitted,

Staci Hartwell, Chair
Environmental and Climate Justice Committee
NAACP Maryland State Conference
8775 Cloudleap Court, Suite 200
Columbia, Maryland 21045

SB590_EJN_Compton_FAV.pdf
Uploaded by: Stephanie Compton
Position: FAV

RE: Favorable Testimony on SB 590, Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)

2/27/2023

Stephanie Compton
2936 Wyman Pkwy.
Baltimore, MD 21211

Dear Chair and Members of the Committee,

Since 2008, dirty sources of energy have been receiving renewable energy credits. These polluters are receiving credits that should have gone to real renewable energy sources like that of wind, solar, and geothermal.

In the past hearings of removing trash incineration from the RPS, the conversation is often confused with questions of “where would the trash go?” Removing the subsidies from trash incineration isn’t about shutting down incinerators, it’s about removing the credits from a polluting source that shouldn’t be labeled as renewable.

Furthermore, trash incineration is a dying industry. No new plants are being built so continuing to subsidize them is irrelevant.

Please pass SB 590 so that Maryland Ratepayers are funding true sources of renewable energy and not false renewables of trash incineration, landfill gas, anaerobic digestion, biomass, and poultry litter incineration.

Sincerely,
Stephanie Compton

SB 590 FAV Energy and Environment Moore LS23.pdf
Uploaded by: Victoria Venable
Position: FAV

Jessica Fitzwater
County Executive

FREDERICK COUNTY GOVERNMENT

DIVISION OF ENERGY & ENVIRONMENT

Shannon Moore, Director

SB 590– Reclaim Renewable Energy Act

DATE:	February 27, 2023
COMMITTEE:	Senate Education, Energy, and the Environment Committee
POSITION:	Support
FROM:	Shannon Moore, Director, Division of Energy and Environment

Thank you for your consideration of SB 590 – Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023). As the Director of the Division of Energy and Environment in Frederick County, I urge the committee to give SB 590 a favorable report.

Despite good intentions of the state's Tier I Renewable Portfolio Standard to reduce carbon dioxide equivalent emissions and increase carbon neutral energy sources, the program subsidizes pollution, to include particulates and ground level ozone precursors. These emissions, in turn, create environmental justice concerns for populations with asthma and lung disease.

For these reasons, Frederick County is in support of SB 590– Reclaim Renewable Energy Act.

Thank you for your consideration. On behalf of Frederick County Government, I urge a favorable report.

Shannon Moore
Director
Division of Energy and Environment
Frederick County Government
30 N. Market St., Frederick, MD 21701
(O) 301.600.1413 (C) 240.608.7406

SB590.pdf
Uploaded by: Adam Strott
Position: UNF

ALLEGANY
· COUNTY ·
Board of County Commissioners

David J. Caporale, President
William R. Atkinson, Commissioner
Creade V. Brodie, Jr., Commissioner
Jason M. Bennett, CPA, Administrator
T. Lee Beeman, Esq, Attorney

February 22, 2023

The Honorable Brian J. Feldman, Chair
The Honorable Cheryl C. Kagan, Vice-Chair
Maryland Education, Energy, and the Environment Committee
Miller Senate Office Building, 2 West
11 Bladen Street
Annapolis, Maryland 21401

Re: SB0590- Renewable Energy Portfolio Standard- Eligible Sources- Alterations (Reclaim Renewable Energy Act of 2023)

Dear Chairman Feldman, Vice-Chair Kagan, and Members of the Committee:

The Allegany County Commissioners, duly elected officials representing the residents of Allegany County, a constituent jurisdiction of the State of Maryland, opposes SB 590, "Reclaim Renewable Energy Act of 2023," and urge that it remains in the Committee. This bill, as written, would eliminate the future potential for biomass systems to qualify for "renewable energy credits" with severe implications for forestry, wood waste, and bioenergy operations that will affect the whole of Western Maryland. Woody biomass will play a key role in our region's energy transition, and will guarantee and stimulate the creation of highly skilled and well-paying jobs in the areas of environmental science, forestry, energy, advanced manufacturing and engineering.

In addition, energy derived from woody biomass will secure the health of our forests and help to mitigate environmental disasters, such as the spread of blight and wild fires, by providing a financial incentive to cull problematic tree growth. From speaking with local foresters, it is clear that the closure of the Verso Paper Mill in Luke has spurred a dramatic decrease in the cultivation of low-value, small-diameter wood waste from logging and thinning.

Overgrown forests spread pests and disease, and tree decomposition releases large amounts of methane, which is a significantly denser greenhouse gas than carbon dioxide. Dry and dead matter also create large swaths of combustible material. Just this month, local volunteer fire crews from across the region, including Allegany and Garrett counties in Maryland, Mineral County in West Virginia and Somerset and Bedford counties in Pennsylvania, worked tirelessly to extinguish two massive brush fires in the areas of Corriganville and Rawlings. Replacing the "pulpwood" demand through woody biomass energy will encourage sustainable forestry practices by providing landowners an economic incentive to keep forests healthy and productive.

701 Kelly Road
Cumberland, MD 21502
E countyclerk@alleganygov.org
T 301 777-5911
alleganygov.org

This, in turn, will have a multiplying effect on our region, as increased forest health will attract more innovation and investment in sustainable technologies that utilize the natural carbon cycle that is attributed to the growth of trees. New technologies, such as advanced building materials derived from wood (e.g., cross laminated timber), could flourish in Western Maryland in general and Allegany County in particular.

There is also the threat of losing employment base that is already present in Allegany County to consider. Last year, AES Corporation, who owns and operates the Warrior Run Generating Station in Cumberland, announced its intentions to eliminate coal power from its portfolio by January 2026. The plant, which employs roughly 75 well-paid and highly-skilled workers, will potentially be required to transition to another feedstock, and woody biomass provides an alternative that is local, highly abundant and renewable, ensuring regional energy independence. States such as Vermont and New Hampshire are home to commercial biomass generation and include energy and heat derived from woody biomass on their Renewable Portfolio Standards. Allegany County can provide a model for the rest of the state in responsible and sustainable commercial scale energy generation, using the renewable resources in our own back yard.

Finally, biomass energy is not in competition with wind or solar in Allegany County. Eliminating biomass from the RPS will not encourage facilities to consider wind/solar over biomass, it will help maintain the status quo of fossil fuels. A number of institutional users are currently analyzing replacing their current fuel oil, gas or coal heating systems with modern and highly efficient biomass systems. Wind and solar projects have seen great success in Allegany County and will continue to thrive, however, they cannot efficiently provide the thermal load needed to heat homes and schools during the harsh winters the region faces.

The Allegany County Commissioners respectfully request that the committee members give an UNFAVORABLE REPORT to SB 590 and urge the Committee to continue to look for more sustainable options that encourage a diverse renewable energy portfolio while Maryland divests itself from fossil fuels, becoming energy independent.

In closing, our forests are our greatest renewable resource and deserve a place in Maryland's RPS.

Sincerely,

BOARD OF COUNTY COMMISSIONERS
OF ALLEGANY COUNTY, MARYLAND

David J. Caporale, President

Creade V. Brodie, Jr., Commissioner

William R. Atkinson, Commissioner

ACC:ADS:kam

MFA SB590 Coalition Opposition Letter.pdf
Uploaded by: Beth Hill
Position: UNF

Maryland Forests Association, Inc.

P.O. Box 332
Linkwood, MD 21835
410-463-1755

Maryland's voice for forest, wildlife, and natural resource management

February 22, 2023

The Honorable Brian J. Feldman, Chair
The Honorable Cheryl C. Kagan, Vice-Chair
Maryland Education, Energy, and the Environment Committee
2 West
Miller Senate Office Building
Annapolis, Maryland 21401

Re: SB0590- Renewable Energy Portfolio Standard- Eligible Sources- Alterations (Reclaim Renewable Energy Act of 2023)

Dear Chairman Feldman, Vice-Chair Kagan, and Members of the Committee,

The Maryland Forests Association represents a broad spectrum of forest industry businesses, landowners, forestry professionals, sporting groups, and concerned citizens. Our association and the organizations listed below oppose SB 590, "Reclaim Renewable Energy Act of 2023," and urge that it remains in the Committee. This bill, as written, would eliminate the future potential for biomass systems to qualify for "renewable energy credits" with severe implications for forestry, wood waste, and bioenergy operations. The opposition to wood energy is often based on misconceptions that biomass systems are "dirty" and cannot meet Maryland's stringent air quality standards or question the sustainability of the wood supply. Neither of these claims is factual. So here are our reasons for opposing the bill.

Energy from woody biomass serves Maryland in several ways. Specifically, this form of energy will help:

- **Reach Environmental Goals**: The 2030 Greenhouse Gas Emissions Reduction Act Plan (GGRA Plan) requires reducing GHG emissions by 50% before 2030. The GGRA Plan recommends replacing fossil fuel systems and deploying clean, renewable energy through the Renewable Energy Portfolio Standard, such as Combined Heat and Power (CHP) systems and power plants that use qualifying biomass.

- **Support Energy Independence**: Currently, 75% of the energy consumed in Maryland is from fossil fuels, and 40% of its energy is imported. Woody biomass is sourced locally from abundant forests and urban wood waste that is competitively priced and has similar efficiencies.

- **Maintain and Improve Forest Stands**: Sustainable active forest management practices on private land are encouraged by providing landowners a market for low-value, small-diameter wood waste from logging and

thinning. In addition, it provides an economic incentive for landowners to participate in forest management, retain ownership, and resist conversion to other uses. "The forest that pays, stays."

- **Increase Utilization**: Residues used in biomass energy systems are diverted from alternative methods of disposal that would have a far more significant impact on the environment, such as landfilling, which releases methane, or open burning, which has the same emissions as bioenergy but without filters or carbon capture technology.

Biomass energy provides Maryland taxpayers with a sensible return on investment in their environment and community. Unlike fossil fuels, biomass energy must be sourced locally from forestry projects or urban wood waste. The price of biomass residues has been consistent over the years and does not fluctuate like the price of oil or gas. Expanding the biomass energy sector has also been found to support local economies and job growth since money spent on wood residues remains in the community, particularly in rural areas of the State.

Biomass energy would help Maryland achieve its goal for the GGRA Plan and is embraced by the Maryland Climate Change Commission (MCCC) as a sustainable energy solution to help reach net-zero GHG emissions economywide by 2045. The MCCC's 2022 Annual Report recognizes the value of biomass energy. It suggests, "The General Assembly should also modify requirements for woody biomass-to-energy systems to qualify for TRECs during the time before the new renewable thermal energy program takes effect. Low-value woody material from a forest management action with a net positive carbon benefit should be included to support healthy and climate-adapted forest composition and sustainable urban tree management" We support their findings and look forward to helping implement them. However, immediately removing TRECs from the RPS will foreclose those opportunities.

For biomass energy to continue having such a significant positive impact on Maryland, it should remain part of Maryland's RPS and continue to qualify for TRECs in the future. While biomass energy is already competitively priced compared to fossil fuels without RECs, removing it from the RPS completely disincentivizes a switch to renewables and creates and perpetuates a stigma against biomass energy.

Biomass energy is not in competition with wind or solar; eliminating biomass from the RPS will not encourage facilities to consider wind/solar over biomass, it will help maintain the status quo of fossil fuels. Biomass energy replaces heating oil, natural gas, and coal. Eliminating biomass from the RPS will not increase solar or wind because they have different ideal applications. However, increasing large-scale solar and wind requires significant amounts of land, leading to deforestation. Biomass markets provide a means for better forest management leading to increased forest health.

There has been a significant development regarding biomass energy and renewable energy credits of which the Legislature may not be aware. In December, Maryland's Public Service Commission approved renewable energy credits for a forest products facility that uses biomass to generate heat instead of using fossil fuels. This is the first such decision in the state. These marketable credits open the door for greater utilization of urban waste wood and low-value or poor-quality trees for which there is generally no market. We now need to explore the potential that this decision offers. SB 590 would immediately extinguish any interest in doing so.

In summary, SB590 will:

- Increase the amount of waste (both wood and municipal) that is sent to landfills and/or trucked out of State to locations with less stringent environmental regulations for disposal, increasing methane emissions from landfills and CO_2 emissions from transportation
- Reduce jobs in sectors such as renewable energy, logging, transportation, chipping, waste management, and forestry
- Prevent Maryland from reaching its environmental goals by 2030 and beyond

- Preemptively disqualifies biomass from being considered for Thermal Renewable Energy Credits (TRECs), despite high efficiencies and stringent regulations.
- Foreclose opportunities provided by the recent PSC decision to approve RECs for thermal biomass systems.

We respectfully request that the committee members give an UNFAVORABLE REPORT to SB590 and urge the Committee to continue to look for more sustainable options that encourage a diverse renewable energy portfolio while Maryland divests itself from fossil fuels, becoming energy independent.

In closing, our forests are our greatest renewable resource and deserve a place in Maryland's RPS.
Thank you, and please feel free to contact me, Beth Hill, at 410-463-1755 or via email at beth@mdforests.org if you have any questions.

Sincerely,

Elizabeth D. Hill
Executive Director, Maryland Forests Association

And the Following Organizations:

Southern Maryland Agricultural Development Commission SMADC

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TRI-COUNTY COUNCIL for SOUTHERN MARYLAND

Maryland Forestry Foundation
STEWARDSHIP IS CARING

MARYLAND ARBORIST ASSOCIATION
Wye Oak

ASSOCIATION OF FOREST INDUSTRIES, INC.
P.O. Box 501
Huntingtown, Maryland 20639

25 YEARS 1995–2020
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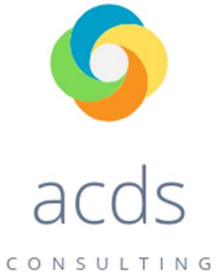
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Society of American Foresters

#TALKINGFORESTS

AES Warrior Run - Cumberland MD

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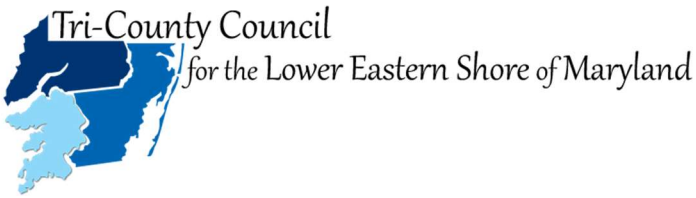
Mid Shore Regional Council



Delmarva RC& D
Dorchester County Forest Conservancy District Board
Somerset County Forest Conservancy District Board
Wicomico County Forest Conservancy District Board

SB590 - Testimony in Opposition - WinWaste.pdf
Uploaded by: Caitlin McDonough
Position: UNF

TO: The Honorable Brian Feldman, Chair
Members, Senate Education, Energy and the Environment Committee

FROM: Caitlin McDonough

DATE: February 28, 2023

RE: **OPPOSE** – Senate Bill 590 – *Renewable Energy Portfolio Standard – Eligible Sources – Alterations (Reclaim Renewable Energy Act of 2023)*

On behalf of Win Waste Innovations and our Baltimore facility (Win Waste), we submit this letter of **opposition** to Senate Bill 590 because it removes waste-to-energy as a Tier 1 renewable energy source from the Renewable Energy Portfolio Standard (RPS). Such a change would have a significant negative impact on Win Waste, our customers such as the City of Baltimore and Baltimore County, and the State's ability to reach its own goals relating to, greenhouse gas (GHG) reduction, and investment in renewable energy and in-state energy generation.

Win Waste is an integral part of Maryland's energy, environmental, and economic infrastructure, providing sustainable waste management for the City of Baltimore and Baltimore County. Every day, we divert waste from landfills to safely convert nearly 700,000 tons of post-recycled waste from area homes and businesses into 330,000 (net) megawatt hours of clean, renewable baseload electricity – enough topower ~34,000 Maryland homes, while reducing landfilling, lowering GHG and recycling ~12,000 tons of metals that would also otherwise be landfilled. Last year, Win Waste's renewable energy generation offset the need for ~718,100 barrels of oil, ~209,300 tons of coal or 2,800 million cubic feet of natural gas. Energy-from-waste reduces GHG by approximately 1 ton for every three tons of waste processed. In addition, Win Waste generates "green steam" for downtown Baltimore's heating and cooling system, which services 255 businesses, including the M&T Bank Stadium, home of the Baltimore Ravens. Over 50 percent of the steam delivered to these local businesses is produced by converting post-recycled household waste into energy at Win Waste. Green steam from Win Waste reduces Baltimore's total GHG by approximately 47,000 tons per year – the equivalent of removing 8,400 cars from the road. It is essential that the committee take a wholistic look at the objectives of the RPS and the broad and ongoing role of WTE, which results is a net reduction of GHG in multiple ways and incentivizes in-state, non-fossil fuel generation.

Energy-from-waste has been endorsed by the U.S. Environmental Protection Agency as the preferred method to landfilling for waste disposal. In fact, it's embraced by the European Environmental Agency, the Center for American Progress, the World Economic Forum, the Intergovernmental Panel on Climate Change, Kyoto Protocol's Clean Development Mechanism, and the United Nations Environment Programme, among many others. Thirty-one states, the District of Columbia, and two territories have defined energy-from-waste as renewable energy in various state statutes and regulations, includingrenewable portfolio standards. Moreover, Baltimore City's 2020 "Less Waste, Better Baltimore" Master Plan recommends continued utilization of energy-from-waste because the alternative of long-haul trucking is "a cost-prohibitive and environmentally degrading option." As such, Maryland would become a national outlier by removing waste-to-energy from the renewable portfolio standards.

Win Waste will invest more than $40 million in air quality controls to ensure that, by 2023, the Baltimore facility will have some of the lowest emissions limits of any energy-from-waste facility anywhere in the United States. It will also continue to aggressively invest in maintenance for all areas of the facility to

ensure its continued high reliability, safety and efficiency well into the future. The company will also continue toinvest in new technologies and equipment to ensure the facility operates within strict state and federal guidelines designed to protect the environment and public health. **Moreover, Win Waste has committed to making $750,000 in annual contributions for the next decade to Baltimore City community and environmental initiatives.**

In their December 2017 report, the Environmental Integrity Project, funded by the Abell Foundation, reported that "on-road vehicles are the largest contributor to the air pollution that people breathe in Baltimore…because vehicle tailpipes…do not disperse pollution as widely as taller smokestacks." They also reported that "there is not a significant association between city zip codes with the highest emissions of criteria pollutants from stationary facilities and the zip codes with the highest asthma rates." A 2020 study by the Abell Foundation confirms that social determinants of health are a primary driver of asthma in Baltimore City.It found, "The link between environmental exposures and asthma symptom burden is clear: Children are more likely to experience asthma exacerbations if they live in areas with high rates of housing code violations or if they are exposed to high levels of allergens or environmental triggers in the home. Research indicates that morethan 84% of homes of children with asthma in Baltimore City contain detectable levels of mouse allergens in bedroom dust and air samples."

As reflected in the December 2019 Report of the Maryland Power Plant Research Program, Figure ES-11, Win Waste's Baltimore facility is an important economic engine to the region – providing jobs, economic stimulus inthe form of capital investments and the purchase of goods and services, local property taxes, and we remain actively engaged in a series of community, environmental, economic initiatives spending tens of millions in the region annually.

As you consider Senate Bill 590, we hope you will recognize the tremendous environmental and economic benefits Win Waste provides to Maryland. The elimination of energy-from-waste as a Tier 1 renewable energy source will adversely affect the continued viability of Win Waste, but also Maryland's ability to meet its high RPS goals. Renewable energy credits help the facility continue to provide affordable and dependable disposal services to the City and the County, while promoting and supporting recycling, diverting waste from landfills, and reducing GHG. We urge the House Economic Matters Committee to give Senate Bill 590 an unfavorable report.

1801 Annapolis Road | Baltimore, MD 21230 | tel 410.234.0808 | fax 410.685.8571 | www.wtienergy.com

WIN_Baltimore_one_pager_8.5x11_020123_V3.pdf
Uploaded by: Caitlin McDonough
Position: UNF

WIN WASTE INNOVATIONS IN BALTIMORE

WASTE-TO-ENERGY IS THE EPA-PREFERRED METHOD FOR END DISPOSAL TO REDUCE GREENHOUSE GASES

Renewable Energy: WIN Waste converts nearly 700,000 tons of waste into renewable energy each year, enough to power 31,000+ homes.

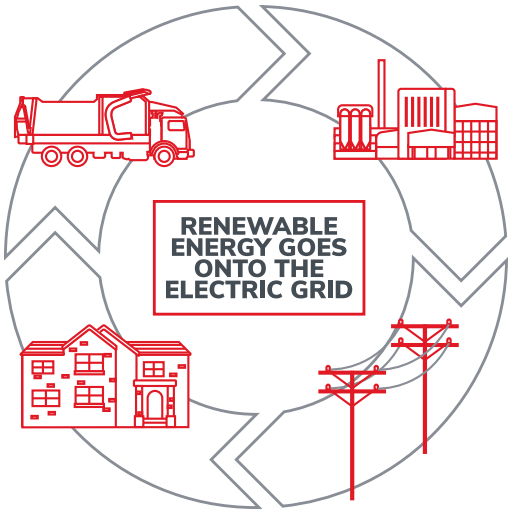
Renewable Portfolio Standard Support: WIN Waste directly advances the Maryland Renewable Energy Portfolio Standard's objectives, which reduce the state's reliance on fossil fuels.

Recycling: Each year, WIN Waste recovers from the waste stream and recycles 12,000+ tons of metals that would otherwise be landfilled.

Economic Impact: WIN Waste pays its 72 full-time employees living wages–hourly compensation starts at $18.40/hr. and averages $34.20/hr.

Sustainable Waste Management: Waste-to-energy is a net carbon reducer, diverting waste from landfills, offsetting tractor trailer trips to get it there and reducing the need for energy from fossil fuels.

Cost-effective: WIN Waste contributes millions to Baltimore City's budget while the alternative disposal method of transfer stations and landfill expansion would cost taxpayers roughly $100 million.



Our work supports a more circular economic model, which is urgently needed to preserve natural resources.

"Waste-to-energy is the better alternative to landfilling for managing MSW that is not recyclable, a reality explicitly recognized by the waste management hierarchy recommended by both the U.S. [EPA] and the European Union."

– Marco J. Castaldi, Ph.D.
The Scientific Truth about Waste-to-Energy
Chemical Engineering Department,
The City College of New York City University of New York

A Commitment to Air Quality

WIN Waste has invested nearly $45 million+ in air-quality controls that will place its Baltimore facility among the cleanest waste-to-energy facilities in the nation – and the world. The upgrades began in early 2022 and will complete in Spring of 2023.

				WIN WASTE IN BALTIMORE	
EMISSION	UNITS	USEPA	MONTGOMERY CTY FACILITY LIMITS	CURRENT	2022-2023
NOx	ppm	205	105	145	**105**
SO2	ppm	29	29	29	**18**
Dioxins	ng/dscm	35	30	35	**15**
Mercury	ug/dscm	50	50	50	**15**
Cadmium	ug/dscm	35	35	35	**25**
Lead	ug/dscm	400	400	400	**250**

WIN WASTE INNOVATIONS®

PERFORMANCE FOR THE PLANET

A Commitment that Together, We Can BMore

In 2022, WIN Waste distributed more than $750,000 in an effort to clean, green, train, and support Baltimore.

We identify opportunities to engage members of the community in our own conservation efforts, and to support, learn from and invest in theirs.

- WIN Waste hires local, Black-owned businesses that employ returning citizens to help clean up litter and keep trash from our streets and waterways
- WIN Waste deploys Green Ambassadors to faith communities every week to address the illegal dumping and littering that devalue our neighborhoods

WIN Waste invests in non-profit and community partners:

- Growing Greenspace, a 16-week initiative to create community gardens, which help capture carbon, mitigate food scarcity and aid in workforce development
- Sponsorship of Baltimore's largest and most ambitious residential composting initiative through 4MyCity
- Expansion of City of Refuge's Victory Garden, where crop surpluses are given to Brooklyn residents
- A $100,000 donation to aid youth workforce development in sustainable initiatives through the youth in the Urban Oasis, Grow Home, My Father's Plan and Challenge 2 Change programs
- Sponsorship of Friends of Carroll Park cut flower program for youth workforce development
- Sponsorship of Waterfront Partnership's Gwynda Trash Wheel to support conversion of waterway litter to renewable energy

Sponsorship, coordination, and staffing of community cleanups

In the last two years, WIN Waste helped remove 1,040 tons of waste (more than two million pounds) from neighborhoods across the city – powering 47 homes for an entire year and avoiding 966 barrels of oil.

2M+
POUNDS OF WASTE REMOVED

47
HOMES POWERED FOR A YEAR

966
BARRELS OF OIL AVOIDED

WIN WASTE INNOVATIONS®
PERFORMANCE FOR THE PLANET

Testimony_WET_FNR_Opp_SB590_Final.pdf
Uploaded by: Carol Dunahoo
Position: UNF

DATE: **February 27, 2023**

TO: **Members, Senate Education, Health and Environmental Affairs Committee**

FROM: **Wicomico Environmental Trust & Friends of the Nanticoke River**

RE: **SB 590 – Renewable Energy Portfolio Standard – Eligible Sources – Alterations (Reclaim Renewable Energy Act of 2023)**

The Wicomico Environmental Trust and the Friends of the Nanticoke River, nonprofit environmental organizations based on the Eastern Shore, **OPPOSE SB 590** regarding alterations to eligible sources in the renewable energy portfolio standard.

The bill would alter the definitions of "qualifying biomass," "thermal biomass system," and "Tier 1 renewable source" for purposes of excluding energy derived from certain forest–related resources, animal manure, waste, and refuse and gas produced from the anaerobic decomposition of animal waste or poultry waste from being eligible for inclusion in the renewable energy portfolio standard; and generally relating to the renewable energy portfolio standard.

The proposed changes target only waste produced by the poultry industry and by commercial farming and forestry. For example, the new definition of "thermal biomass system" would *exclude* a system using "primarily animal manure, including poultry litter," but would continue to *include* one using "food waste or qualifying biomass." A "Tier 1 renewable source" would *exclude* methane captured from the anaerobic digestion of animal or poultry waste but *include* methane from the anaerobic decomposition of organic materials in a landfill or wastewater treatment plant. Similarly, "qualifying biomass" would *exclude* gas from the anaerobic decomposition of animal or poultry waste and most "forest-related resources" but *include* organic waste from "agricultural and silvicultural sources."

These distinctions have no scientific basis. Biomass disposed of in a landfill – treated favorably by the proposed bill – releases much of its carbon into the atmosphere in the form of methane. In contrast, methane produced by the anaerobic digestion of biomass is captured and available for use as energy. Anaerobic digestion avoids the release of methane into the atmosphere, converts it to a much less potent greenhouse gas (carbon dioxide), avoids open burning and the release of particulates, and produces a product that can replace fracked natural gas. Anaerobic digestion provides these same benefits whether it is used to process food or agricultural waste or, instead, animal, poultry, or forest waste. The same is true of other biomass-to-energy systems, such as pyrolysis with its biochar production.

If this bill succeeds in making biomass-to-energy systems economically unviable, the net effects on the environment will be negative; studies have shown that such systems have lower net greenhouse gas emissions than traditional methods of biomass disposal. The bill also would discourage the production of beneficial products such as biochar, which is a potent ecological tool (adsorbent) for environmental cleanups of heavy metal pollution in mining waste and for remediation of toxic chemical residues such as PFAS.

Finally, technologies such as anaerobic digestion and pyrolysis are important tools for ameliorating current waste problems of the industries – poultry, commercial farming, and forestry – targeted by the bill. They are critical to helping those industries, which are the key economic drivers in many areas of the state, continue to become more sustainable.

Maryland should continue to be a national leader in encouraging and incentivizing anaerobic digestion, waste-to-energy, and other biomass-to-energy systems to help address climate concerns. Rather than discriminating among industries, we should continue to allow renewable energy credits for all technologies that process waste inputs and capture methane used to replace fossil fuels (see World Resources Institute, *The Production and Use of Renewable Natural Gas as a Climate Solution in the United States* (2018), available at https://www.wri.org/research/production-and-use-waste-derived-renewable-natural-gas-climate-strategy-united-states).

For all of these reasons, we respectfully ask that the Committee give an **UNFAVORABLE** report on SB 590.

Sincerely,

Madeleine Adams
President, Wicomico Environmental Trust

Jay Martin
President, Friends of the Nanticoke River

Opposition of SB 590 - Renewable Energy Portfolio

Uploaded by: Colby Ferguson

Position: UNF

Maryland Farm Bureau, Inc.

3358 Davidsonville Road • Davidsonville, MD 21035 • (410) 922-3426

February 28, 2023

To: Senate Education, Energy, and the Environment Committee

From: Maryland Farm Bureau, Inc.

Re: **Opposition of SB 590 - Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)**

On behalf of our member families, I submit this written testimony opposing SB 590. This bill removes several energy sources from eligibility for inclusion in the State Renewable Energy Portfolio (RPS), more specifically: (1) certain forest-related and gas sources of qualifying biomass; (2) thermal biomass systems that use primarily animal manure; (3) poultry litter-to-energy; (4) waste-to-energy; and (5) refuse-derived fuel.

As the state moves towards more and more renewable energy generation, utilizing biomass to generate energy not only utilizes waste products, but captures the methane and uses it instead of just letting it go into the atmosphere. With many of the paper mills shutting down, the need for a new use of wood products is needed. Anaerobic digesters are starting to be installed on dairy farms to capture methane gas and utilize it as a renewable energy source to make electricity for the farm instead of just letting it go into the atmosphere. We need to be increasing our sources of renewable energy to meet the ever-growing demand on electricity in Maryland, not removing them.

MDFB Policy: We support an additional carve-out in the Maryland RPS for woody biomass, poultry litter and livestock manure to energy generation.

MARYLAND FARM BUREAU RESPECTFULLY OPPOSES SB 590

Colby Ferguson
Director of Government Relations
For more information contact Colby Ferguson at (240) 578-0396

2-27-23 SB 590 Testimony.pdf

Uploaded by: Courtney Spangler

Position: UNF

726 Second Street, Suite 3B
Annapolis, MD 21403
info@cleanbayrenewables.com
410.514.6488

February 27, 2023

The Honorable Chairman Brian J. Feldman
The Honorable Vice Chair Cheryl C. Kagan
The Honorable Karen Lewis Young
Maryland General Assembly, Senate Education, Energy, and the Environment Committee
2 West, Miller Senate Office Building
Annapolis, MD 21401

Re: SB 590 – Renewable Energy Portfolio Standard – Eligible Sources – Alterations
(Reclaim Renewable Energy Act of 2023)

Dear Chairman Feldman, Vice Chair Kagan, and Senator Lewis Young:

I am writing to ask for parity among Tier 1 renewable sources in your consideration of Senate Bill 590 and all other renewable energy legislation. The proposed bill was introduced with the express purpose of repealing the ability for renewable energy from the anaerobic digestion of poultry litter to qualify to participate in Maryland's Renewable Energy Portfolio Standard (RPS).

To effectively address environmental challenges now, Maryland's RPS needs to include diverse solutions and resources that can start working together today and affect measurable change quickly. Anaerobic digestion is a key tool to further enhance the sustainability efforts underway by our farmers. Maryland can increase competitiveness with other states including California, Oregon, Minnesota, and Washington who have long included anaerobic digestion of animal manures and other biomass as an important part of their renewable energy strategies. We need to keep all options on the table to meet our state's climate and energy objectives.

Maryland relies on natural gas for 36% of in-state electricity production, and as President Biden said in his recent State of the Union address, we still need gas as a bridge fuel to a net-zero emission future. If gas is still necessary, then it is best if that gas be delivered from a renewable source through anaerobic digestion.

CleanBay Renewables is a Maryland enviro-tech company founded in 2013 focused on sustainable management of agricultural byproducts using combined anaerobic digestion and nutrient recovery technologies to recycle poultry litter and create renewable energy at utility scale. Our unique process recycles more than 150,000 tons of chicken litter annually from local farms into biomethane which can then be injected into a pipeline for home or transportation use, converted into green hydrogen, or used to power electric vehicles. CleanBay's closed-system, zero liquid discharge facilities are a complete solution to address existing agricultural byproducts with no residual waste and no incineration required.

Our technology to recycle poultry litter is as clean as solar and wind generation, yet in addition to creating clean baseload renewable energy we also create a natural fertilizer that can replace synthetic fertilizers here and throughout the Chesapeake Bay watershed. Our technology presents Maryland with the opportunity to divert an abundant byproduct of local farms, create the sustainable and baseload energy our state needs, and improve the health of local air, soil, and water.

At full capacity, each CleanBay facility can produce 750,000 MMBTU of sustainable renewable natural gas. That is enough renewable gas to power about 11,000 homes each year. Each CleanBay plant will reduce the carbon equivalent of more than 500,000 tons of carbon dioxide (CO_2) annually when compared with current litter management practices. According to the U.S. Environmental Protection Agency, this would be the same as removing more than 400,000 gasoline powered cars from the road each year. Our process also produces 100,000 tons of natural, controlled-release fertilizer with granules that give farmers a nutrient-rich alternative to synthetic fertilizer and raw manure while addressing concerns about nutrient loading from phosphorous or nitrogen.

There is an opportunity to promote meaningful in-state economic development by incentivizing clean renewable energy technology companies to locate and grow in Maryland. We ask that renewable energy diversity remain viable, and that any legislation working to incentivize more renewable energy projects and expand the market for renewable energy credits include biomass or biogas from poultry litter using anaerobic digestion. Renewable energy diversity is what is needed as we transition away from fossil fuels toward net-zero carbon goals. Our state's agricultural sector can contribute to our renewable energy mix.

We cannot support this legislation as introduced since it ignores the multitude of environmental, economic, and agricultural benefits that our facilities will provide. When you think about ways to improve our environment and address impacts of climate change, realize that it is not just about powering our energy needs from renewable sources; we must also focus on removing or repurposing carbon, methane, nitrous oxide, and other greenhouse gas emissions from our air, and finding new solutions to address age old environmental challenges. CleanBay Renewables can provide renewable energy while also removing harmful emissions, providing natural fertilizer that can replace synthetic fertilizer, and generating jobs.

Today, many new clean energy technology companies like ours are working on sustainable resource management and clean energy innovation in our state. Now is the time to signal to investors that newer clean energy options are also part of the solution to meet our state's energy consumption needs. We ask that you keep energy derived from poultry litter in our RPS and oppose these changes as they would have a negative effect on the state reaching its RPS and net-zero goals. Thank you.

Sincerely,

Thomas Spangler
Executive Chairman, CleanBay Renewables

SB0590_MAA_UNFAV.pdf
Uploaded by: Danielle Bauer Farace
Position: UNF

Maryland Arborist Association, Inc.
Danielle Bauer Farace
Executive Director

SB 0590 – Renewable Energy Portfolio Standard – Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)

Committee: Education, Energy, and Environment Date: February 27, 2023
MAA Position: **OPPOSE**

The Maryland Arborist Association, Inc. (MAA) works to promote the importance of proper tree care, education in the field of arboriculture, and support the accomplishments of arborists. We urge you to oppose SB 0590 – Renewable Energy Portfolio Standard – Eligible Sources – Alterations (Reclaim Renewable Energy Act of 2023), which would exclude energy derived from certain forest-related resources from being eligible for inclusion in the renewable energy portfolio standard. Wood energy is a small part of Maryland's current Renewable Energy Portfolio Standard (RPS) but provides significant benefits to the environment, reduces dependency on fossil fuels, and helps the local economy by investing in Maryland energy production and jobs. Additionally, it has been recognized by entities such as the U.S. Environmental Protection Agency and the Intergovernmental Panel on Climate Change as an immediate solution to decarbonize our fuel supply.

Creating Thermal Renewable Energy Credits is crucial to renewable energy in Maryland because:

- Reach Environmental Goals: The 2030 Greenhouse Gas Emissions Reduction Act Plan (GGRA Plan) requires reducing GHG emissions by 50% before 2030. The GGRA Plan recommends replacing fossil fuel systems and deploying clean, renewable energy through the Renewable Energy Portfolio Standard such as Combined Heat and Power (CHP) systems and power plants that use qualifying biomass.
- Support Energy Independence: Currently, 75% of the energy consumed in Maryland is from fossil fuels, and 40% of its energy is imported. Wood residues are sourced locally from abundant forest and urban wood waste, competitively priced, and have similar efficiencies.
- Maintain and Improve Forest Stands: Sustainable active forest management practices on private land are encouraged by providing landowners market for low-value, small diameter wood waste from logging and thinning. In addition, it provides an economic incentive for landowners to not only participate in forest management but also to retain ownership and resist conversion to other uses.
- Increase Utilization: Residues used in wood energy systems are diverted from alternative methods of disposal that would have a far more significant impact on the environment,

such as landfilling, which releases methane, or open burning, which has the same emissions as bioenergy but without filters or carbon capture technology.

- Develop a Resilient System: Wood energy is the most efficient in thermal applications and can be accessed on demand. These qualities complement other forms of renewable energy, such as solar and wind, which are the most efficient at generating electricity and have intermittent access.

With the closure of sawmills, specifically in Western Maryland and the Eastern Shore, arborists have had to find alternative disposal avenues, such as landfills, to dispose of brush and wood waste. Passage of this bill would eliminate a sustainable market for the byproducts of tree care work. Due to the impact on Maryland's tree care industry, MAA requests your unfavorable report on SB 0590.

Sincerely,

Danielle Bauer Farace
Executive Director

7151 Hubbard Road, Federalsburg, MD 21632
410-928-4888 ● office@mdarborist.com ● www.mdarborist.com

MD-SB 590- Renewable Energy Portfolio Standards al

Uploaded by: Darrin Youker

Position: UNF

FARM CREDIT
HORIZON

February 28, 2023

To: Senate Education, Energy and the Environment Committee

From: Horizon Farm Credit

Bill: **SB 590 Renewable Energy Portfolio Standards - Eligible Sources**

Position: **OPPOSED**

Horizon Farm Credit is a member-owned cooperative supporting rural communities and agriculture with reliable, consistent credit and financial services throughout our five-state lending territory in good times and bad. With over $6 billion dollars in loans outstanding to nearly 23,000 member-owners representing the full range of agriculture, we are one of the largest agricultural lenders on the East Coast.

SB 590 would prohibit poultry litter, animal manure, and biomass materials from being considered Tier I renewable energy sources and remove them altogether from the State's Renewable Energy Portfolio Standards (RPS). If adopted, this could significantly curtail the efficient and beneficial use of such agricultural and silvicultural by-products.

Although applied to the land according an approved nutrient management plan remains the most efficient and ideal use of poultry litter and most animal manures, some farms utilize anaerobic digesters to create another valuable use of these materials – energy generation. Others continue to collaborate with scientists and universities to find viable and innovative methods to create energy from poultry litter.

In an ideal setup, farmers can generate renewable electricity from the manure or litter and the material resulting from the process can still be used as a soil amendment for crop uptake or animal bedding. Recycling at its finest.

SB 590 will reduce the ability for agriculture and forestry operations to utilize their by-products in a beneficial manner by eliminating the demand spurred in part by the RPS.

Horizon Farm Credit OPPOSES SB 590.

For more information, please contact Darrin Youker at 717-634-0004 or dyouker@horizonfc.com.

Domtar SB590 Oppose 02 28 23.pdf
Uploaded by: Delora Sanchez Ifekauche
Position: UNF

Domtar

February 28, 2023

The Honorable Brian Feldman
Chairman, Maryland Education, Energy, and the Environment
Miller Senate Office Building, 2 West
Annapolis, Maryland 21401

Opposition to SB 590–Renewable Energy Portfolio Standard – Qualifying Biomass

Mr. Chairman and Committee Members:

Thank you for the opportunity to submit comments regarding Senate Bill 590 -Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023). Domtar fully supports the Maryland Renewable Energy Portfolio Standards ("RPS") program in its current form and a long-term goal of 100% renewable energy. The Maryland RPS ("MD RPS") along with the other PJM[1] RPS programs are leading the way into the renewable future by supporting a diverse and growing renewable generation portfolio. Through active participation in the MD RPS, Domtar has been serving Maryland ratepayers since 2014.

Domtar's opposition to SB 590 is based on the following:

- Unlike wind and solar, biomass-based generation is available 24-hours per day.
- The majority of the biomass energy in the MD RPS is fueled from residuals left over from higher-value production processes. Not using these renewable resources for energy production is the equivalent to throwing away recyclable materials.
- Excluding biomass from the MD RPS increases the likelihood that biomass will be landfilled or left "on the ground" where decomposition produces greenhouse gasses such as methane that are 21 times more virulent[2] in causing global warming than atmospheric carbon dioxide, and combustion with exhaust through modern pollution control equipment is always preferable to landfilling, natural decomposition or open burning alternatives.

[1] The Pennsylvania, New Jersey and Maryland power pool
[2] https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf

- The United States Environmental Protection Agency ("EPA") recognizes biomass fueled electric energy as both renewable and carbon-neutral[3] and states that biomass plays an important role in the development of renewable energy strategies[4].
- Further reducing the supply of renewable energy to Maryland ratepayers will convert the RPS from a source of renewable energy to nothing more than a legislative tax that provides no renewable benefits to the state.
- It ignores the environmental benefits of the more than one million acres of Maryland forests and the millions of forested acres growing in Maryland's air and watersheds.

Increasing Costs to Maryland Ratepayers

Prompt REC pricing for Maryland Tier I RECs went from $11.35/REC in January of 2021, to $22.85/REC at the start of last year's legislative session to $29.83/REC when the current session started. These increasing costs fall on all Marylanders. More importantly, disqualifying even more renewable supply when REC prices are only pennies away from the Maryland Alternate Compliance Payment ("APC") of $30.00/REC[5], runs the risk that Maryland's RPS becomes nothing more than a tax imposed on Maryland ratepayers by their legislators while the supply of renewable energy currently allocated to Maryland is sent to other states.

The Maryland RPS is working

Under current market conditions wind generation made available to the Maryland RPS is increasing by more than 1 million MWh per year[6]. Any further changes or cost increases are not necessary to further incentivize new development and will only increase costs to Maryland ratepayers and reallocate the available renewable energy to other states.

Eliminating a diverse source of renewable electricity from Maryland ratepayers

The stated objective of the Maryland RPS is to recognize and develop the benefits associated with a diverse collection of renewable energy supplies[7]. Wind and solar only generate energy during a handful of hours each day. Unlike wind or solar, biomass-based generation is available during all hours of the day and night. The importance of around-the-clock availability of renewable energy was recently highlighted when PJM-EIS[8] began qualifying time-stamped RECs[9] in response to a growing demand for procuring and tracking renewable energy around the

[3] https://www.epa.gov/sites/default/files/2018-04/documents/biomass_policy_statement_2018_04_23.pdf
[4] Ibid. 3
[5] NJ's ACP is $50/REC and PA's is $45/REC. Source: https://www.pjm-eis.com/~/media/pjm-eis/documents/rps-comparison.ashx Page 3 of 9
[6] Wind generation in the MD RPS was 1,464,138 MWh in CY15 and 7,629,738 MWh in CY21 equaling (7,629,738 MWh - 1,464,138 MWh) / 6 years = 1,027,600 MWh/year.
[7] https://www.psc.state.md.us/electricity/maryland-renewable-energy-portfolio-standard-program-frequently-asked-questions/
[8] PJM's Environmental Information Services
[9] https://www.pjm.com/-/media/about-pjm/newsroom/2023-releases/20230213-pjm-eis-to-produce-energy-certificates-hourly.ashx

clock. Having a diverse renewable generation portfolio that includes biomass along with wind and solar is the most efficient and cost-effective way to meet the around-the-clock renewable needs of Maryland's ratepayers.

Ignores the environmental benefits of millions of expanding forests in Marylander's watershed and airshed.

The Domtar mill that supplies renewable generation into Maryland's RPS program represents roughly one million acres of growing, expanding forests that have been sustainably managed for many decades. These forests are diverse in age and species mixes and provide Marylanders with cleaner air and cleaner water along with providing many other environmental and societal benefits. For the mill remaining qualified in MD, the growth of these forests exceeds removals by a factor of 1.56[10] where values greater than 1.0 indicate healthy forests that are actively sequestering atmospheric carbon. Our mills and the wise use of our mill residuals are an integral part of the natural environmental process that is sequestering atmospheric carbon. The processing of raw wood also reduces forest decomposition of organics and greatly reduces methane emissions that are known to be 21 times more potent than equal amounts of carbon dioxide in trapping heat in the atmosphere. Removing wood-waste-solids and other mill residuals from the Maryland RPS only makes it more challenging and more costly for our industry to sustain these forests and threatens the many environmental benefits these forests provide.

For these reasons and many others, Domtar stands in opposition to SB 590.

Who we are

Domtar is a leading provider of communication, specialty and packaging papers, market pulp and absorbent hygiene materials. We are the market leader in North America in uncoated freesheet papers (your typical office writing and printing papers) with 6,400 employees serving more than 50 countries around the world.

Please do not hesitate to reach out to me at Steve.Thomas@Domtar.com should you have any questions or call me at (803) 372-8729.

Sincerely,

Stephen (Steve) R. Thomas, PE
Senior Manager, Energy Programs

[10] Forest2Market and US Forest Service Inventory and Analyses programs

SB 590_CBF_UNF.pdf
Uploaded by: Doug Myers
Position: UNF

CHESAPEAKE BAY FOUNDATION

Environmental Protection and Restoration
Environmental Education

Senate Bill 590

Renewable Energy Portfolio Standard – Eligible Sources – Alterations
(Reclaim Renewable Energy Act of 2023)

Date: February 28, 2023
To: Senate Education, Energy and the Environment Committee

Position: Oppose
From: Doug Myers
Maryland Senior Scientist

Chesapeake Bay Foundation (CBF) **OPPOSES** SB 590 which would remove several sources of qualifying biomass and gas produced from anaerobic digestion as a Tier I renewable energy source.

CBF has worked diligently with Md. Department of Agriculture and the Delmarva Poultry industry to create multiple alternatives to land disposal of poultry litter in places saturated by legacy phosphorus. Excess phosphorus leaches into shallow surface waters through agricultural tile drainage systems to become a significant water pollutant to the Bay. The Maryland General Assembly approved the Phosphorus Management Tool (PMT) in order to address this ongoing source of bay pollution. Under a comprehensive PMT implementation plan which includes on farm practice changes and a state subsidized manure transport program, generation of biogas is an important component to address excess manure and limit transportation costs to the program. Qualifying biomass fuel sources not only convert what was once a waste product into energy that can replace fossil fuels, but the remaining by-products can also be further separated into useful soil amendment products that do not harm the environment and cost less fuel to transport.

While we understand that methane is a potent greenhouse gas, these sources of biomass from existing Maryland industries are controlled and quantified as a Tier I source. These byproducts would still be emitting methane, carbon dioxide and nitrous oxides in an uncontrolled fashion if there was no market for biogas or wood waste. For these reasons, at this time, CBF would prefer they remain within the Tier I portfolio.

CBF urges the Committee's UNFAVORABLE report on SB 590.

For more information, please contact Matt Stegman, Maryland Staff Attorney at mstegman@cbf.org.

AFPA Testimony on SB 590 unfav final 2-23-23 (1).
Uploaded by: Elizabeth Olds
Position: UNF

American Forest & Paper Association

LEGISLATIVE POSITION: UNFAVORABLE
Senate Bill 590
Renewable Energy Portfolio Standard - Eligible Sources - Alterations
(Reclaim Renewable Energy Act of 2023)
Senate Education, Energy, and the Environment Committee

February 28, 2023

The Honorable Brian Feldman, Chair, Senate Education, Energy, and the Environment Committee
The Honorable Cheryl Kagan, Vice Chair, Senate Education, Energy, and the Environment Committee

Dear Chair Feldman, Vice Chair Kagan, and Members of the Committee:

The American Forest & Paper Association[1] (AF&PA) appreciates the opportunity to share our perspective on Senate Bill 590 on behalf of our members and their employees who are an integral part of the circular economy. In Maryland, the forest products industry employs nearly 6,000 individuals in 29 facilities that produce packaging, sales displays, corrugated boxes and other products with an annual payroll of over $395 million.[2]

Through the highly efficient use of biomass residuals of the forest products manufacturing process, AF&PA members generate renewable bioenergy and have improved their energy efficiency and reduced fossil fuel use and greenhouse gas (GHG) emissions by 23.3 percent since 2005. Bioenergy from forest products manufacturing residuals provides large GHG reduction benefits – roughly equivalent to removing 35 million cars from the road. SB 590 would prevent these clean technologies from qualifying as a Tier 1 renewable source, which would unfairly discriminate against AF&PA members who are committed to the continued use of carbon beneficial bioenergy as part of the circular economy. Accordingly, AF&PA must respectfully ask the Committee to give SB 590 an unfavorable report.

AF&PA Members Generate Renewable Energy While Reducing GHG Emissions

The forest products industry produces and uses renewable energy for manufacturing operations and is a significant contributor to our country's existing base of renewable energy. On average, approximately two-thirds of the energy used at AF&PA member pulp and paper mills is generated from carbon-neutral biomass.

[1] The American Forest & Paper Association (AF&PA) serves to advance U.S. paper and wood products manufacturers through fact-based public policy and marketplace advocacy. The forest products industry is circular by nature. AF&PA member companies make essential products from renewable and recycle resources, generate renewable bioenergy and are committed to continuous improvement through the industry's sustainability initiative — *Better Practices, Better Planet 2030: Sustainable Products for a Sustainable Future*. The forest products industry accounts for approximately 5% of the total U.S. manufacturing GDP, manufactures nearly $350 billion in products annually and employs approximately 925,000 people. The industry meets a payroll of approximately $65 billion annually and is among the top 10 manufacturing sector employers in 43 states.
[2] Data sources: U.S. government, AF&PA, and RISI. Figures are the most recent available as of December 2020.

The industry also strives to use all types of energy as efficiently as possible. The industry is a leader in the use of combined heat and power (CHP) technology, which is extremely efficient because it uses the same fuel to produce both thermal energy used in the manufacturing process as well as electricity, some used on-site and some sold to the grid. In 2018, over 98 percent of electricity produced by the industry was CHP-generated. The use of CHP provides energy efficiencies in the range of 50 to 80 percent at forest products mills, far beyond non-CHP electrical stations such as utilities, which are only about 33 percent energy efficient. Unfortunately, under SB 590, these clean technologies would not qualify as Tier 1 renewable sources.

Our commitments to renewable biomass energy and energy efficiency, including our extensive use of CHP, have led to a major decrease in the sector's use of fossil fuel and GHG emissions. Energy purchased by member pulp and paper mills has decreased dramatically.

Bioenergy from Forest Products Manufacturing Residuals Provides Enormous GHG Reduction Benefits

SB 590 expands upon Chapter 673[3] that was enacted in 2021 to remove black liquor. SB 590 would remove wood waste renewable energy credits from the Renewable Portfolio Standard (RPS). It also removes thermal biomass and most other combustion-based renewable energy sources from the Maryland RPS.

Over the years that the Maryland legislature has been considering changes to the RPS, some have raised questions about the carbon neutrality and GHG reduction benefits of the bioenergy produced in the forest products industry. We respectfully submit that the scientific literature clearly shows that those concerns are unfounded. In fact, the scientific evidence shows there are enormous GHG reduction benefits from using forest products manufacturing residuals for energy. For example, an extensive, peer-reviewed study by the National Council for Air and Stream Improvement shows that each year, the bioenergy produced in U.S. forest products industry avoids the emission of approximately 181 million metric tons of CO2e.[4] (This is roughly equivalent to removing about 35 million gasoline-powered cars from the road.)

During the Obama-Biden Administration, the U.S. Environmental Protection Agency (EPA) closely examined the carbon benefits of the bioenergy produced by the U.S. paper and wood products manufacturing industry and stated that "the EPA generally acknowledges the CO_2 and climate policy benefits of waste-derived biogenic feedstocks and certain forest- and agriculture-derived industrial byproduct feedstocks, based on the conclusions supported by a variety of technical studies, including the revised [EPA] *Framework for Assessing Biogenic Carbon Dioxide for Stationary Sources*."[5] An article

[3] SB 65, Enacted under Article II, Section 17(c) of the Maryland Constitution - Chapter 673

[4] Caroline Gaudreault and Reid Miner, *Temporal Aspects in Evaluating the Greenhouse Gas Mitigation Benefits of Using Residues from Forest Products Manufacturing Facilities for Energy Production*. Journal of Industrial Ecology (Dec. 2015), at 1,004-05; National Council for Air and Stream Improvement, Greenhouse Gas and Fossil Fuel Reduction Benefits of Using Biomass Manufacturing Residuals for Energy Production in Forest Products Facilities, Technical Bulletin No. 1016 (rev. Aug. 2014).

[5] U.S. Environmental Protection Agency, "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Clean Power Plan Rule," 80 Fed. Reg. 64,661, 64,885-86 (Oct. 23, 2015).

authored by experts in fields including lifecycle analysis and forestry concluded that "if [paper and wood products] mill residues were not used for energy, most of these materials . . . would be wastes that would be either incinerated, in which case the atmosphere would see the same biogenic CO_2 emissions as if the material had been burned for energy, or disposed in landfills . . . [in which case] the net impact of burning for energy on biogenic emissions, in terms of warming (i.e., CO2 equivalents), can actually be less than zero because of the warming potency of the methane generated in landfills."[6] These and additional examples are provided in the Appendix to this statement.

In addition, many governments around the world recognize the carbon neutrality of forest products manufacturing residuals, and competitors in Europe are rewarded with renewable energy credits. Thus, this bill would set an adverse precedent for energy policy in the U.S. and Maryland, placing U.S. forest products mills at a competitive disadvantage. For many years, there has been bipartisan support in the U.S. Congress for an amendment that was agreed to in the 2017 Omnibus Appropriations Act passed in May 2017, which affirms the carbon benefits of bioenergy and requires three federal agencies (EPA, USDA, and DOE) to work together to create a consistent policy on biomass carbon neutrality. Former U.S. Senator for Maryland, Barbara Mikulski, signed a letter stating that there has been no dispute about the carbon neutrality of biomass derived from residuals of forest products manufacturing and agriculture.[7] That provision also has been included in the appropriations acts for 2018, 2019, 2020 and 2021 (in the recently enacted stimulus bill).

SB 590 is Inconsistent with the Goals of the RPS

When it was enacted, Maryland legislators provided several goals for the RPS, including the recognition of the economic, environmental, and security benefits of renewable energy resources, and to establish a well-functioning, diverse market for renewable electricity. SB 590 would work contrary to these goals. It does not recognize the benefits of numerous renewable energy resources and decreases fuel diversity, while interfering with the functioning of the market by creating favored resources and upending investor expectations. Furthermore, the legislature's frequent changes to the RPS make business planning in the state challenging.

Conclusion

The forest product industry has played an important role in helping Maryland and the nation meet their renewable energy objectives. SB 590 could impede our ability to continue using clean bioenergy, displace fossil fuels, and reduce greenhouse gas emissions in a highly sustainable manner. We request that the Committee give the bill an unfavorable report.

We look forward to continuing our work with the State of Maryland. Please feel free to contact Elizabeth Olds, Government Affairs Manager, AF&PA at Elizabeth_Olds@afandpa.org for further information.

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[6] Reid Miner, Robert Abt, et al., "Forest Carbon Accounting Considerations in U.S. Bioenergy Policy," Journal of Forestry (Aug. 29, 2014).

[7] U.S. Senator Barbara Mikulski letter to the Honorable Gina McCarthy, the Honorable Dr. Ernest Moniz, the Honorable Tom Vilsack. Washington DC, June 30, 2015.

Thank you.

/s/
Elizabeth Olds
Manager, Government Affairs
Elizabeth_Olds@afandpa.org
American Forest & Paper Association

APPENDIX

There is Widespread Recognition of Forest Products Manufacturing Residuals as Carbon Neutral

- U.S. Environmental Protection Agency, Memorandum from Janet G. McCabe, Acting Assistant Administrator, Office of Air and Radiation, to Air Division Directors, Regions 1-10 (Nov. 19, 2014) ("Information considered in preparing the second draft of the Framework, including the [Science Advisory Board] peer review and stakeholder input, supports the finding that use of waste-derived feedstocks and certain forest-derived feedstocks are likely to have minimal or no net atmospheric contributions of biogenic CO2 emissions, or even reduce such impacts, when compared with an alternative fate of disposal.") (p. 2)

- U.S. Environmental Protection Agency, *Draft Framework for Assessing Biogenic CO_2 Emissions from Stationary Sources* (Nov. 19, 2014) ("The information in this appendix, including example calculations of alternative fate-related biogenic emissions, supports that a 0 or negative [biogenic] assessment factor for black liquor may be reasonable.") (Appendix D, p. D-22); (calculating negative biogenic assessment factors for black liquor and stating that "avoided emissions associated with disposal of black liquor as compared with the current management practice (burning for energy and chemical recovery in a recovery furnace) resulted in hypothetical example [biogenic assessment factors] BAFs ranging from different negative values to 0, depending on the treatment method.") (Appendix D, p. D-31)
- Caroline Gaudreault and Reid Miner, *Temporal Aspects in Evaluating the Greenhouse Gas Mitigation Benefits of Using Residues from Forest Products Manufacturing Facilities for Energy Production*. Journal of Industrial Ecology (Dec. 2015), at 1,004-05 ("[The ongoing use of manufacturing residues for energy in the forest products industry has been yielding net benefits for many years . . . . [T]he use of biomass residues from forest products manufacturing, including black liquor, to produce energy in the U.S. forest products industry for 1 year avoids, over a 100-year period, 181 million t CO_2-eq/yr. The avoided disposal of the forest products manufacturing residues alone (i.e., ignoring [fossil fuels] substitution and chemical recovery benefits) results in a GHG benefit of approximately 5 million t CO_2-eq/yr.")

- Dr. Timothy Searchinger, Dr. Steven Hamburg, et al., "Fixing a Critical Climate Accounting Error," Science (Oct. 22, 2009) ("Instead of an assumption that all biomass offsets energy emissions, biomass should receive credit to the extent its use results . . . from the use of residues or biowastes.")
  Note: Steve Hamburg is the Chief Scientist of the Environmental Defense Fund.

- Dr. Timothy Searchinger and Ralph Heimlich "Avoiding Bioenergy Competition for Food Crops and Land." World Resources Institute (2015) (supporting bioenergy produced during paper making" as an "advisable" sources of biomass energy) (pp. 22, 24)

- Reid Miner, Robert Abt, et al., "Forest Carbon Accounting Considerations in U.S. Bioenergy Policy," Journal of Forestry (Aug. 29, 2014) ("... if mill residues were not used for energy, most of these materials . . . would be wastes that would be either incinerated, in which case the atmosphere would see the same biogenic CO_2 emissions as if the material had been burned for energy, or disposed in landfills . . . [in which case] the net impact of burning for energy on biogenic emissions, in terms of warming (i.e., CO2 equivalents), can actually be less than zero because of the warming potency of the methane generated in landfills.")

- U.S. Environmental Protection Agency, "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Clean Power Plan Rule," 80 Fed. Reg. 64,661, 64,885-86 (Oct. 23, 2015) ("The EPA recognizes that the use of some biomass-derived fuels can play an important role in controlling increases of CO2 levels in the atmosphere. The use of some kinds of biomass has the potential to offer a wide range of environmental benefits, including carbon benefits. . . . With regard to assessing qualified biomass proposed in state plans, the EPA generally acknowledges the CO_2 and climate policy benefits of waste-derived biogenic feedstocks and certain forest- and agriculture-derived industrial byproduct feedstocks, based on the conclusions supported by a variety of technical studies, including the revised *Framework for Assessing Biogenic Carbon Dioxide for Stationary Sources*.")

- Linda A. Joyce (U.S. Forest Service), Steven W. Running (U. of Montana), et al., Climate Change Impacts in the United States: The Third National Climate Assessment, Ch. 7: Forests, U.S. Global Change Research Program, doi:10.7930/J0Z60KZC (2014) ("Forest biomass energy could be one component of an overall bioenergy strategy to reduce emissions of carbon from fossil fuels, while also improving water quality, and maintaining lands for timber production as an alternative to other socioeconomic options.") (p. 182)

- Dr. Roger A. Sedjo, Resources for the Future, "Carbon Neutrality and Bioenergy: A Zero-Sum Game?" RFF DP 11-15 (April 2011) (noting that both sides in the carbon neutrality debate [see two letters below] recognize that "some biomass, such as dead wood and forest debris, can constructively be used for bioenergy, since it will otherwise release carbon through natural decomposition . . . thus no net emissions result from its use as energy") (p. 3)

- Dr. Bruce Lippke, Professor Emeritus, University of Washington School of Forest Resources, et al., Letter to Congress from Forest Scientists (July 20, 2010) ("equating biogenic carbon emissions with fossil fuel emissions . . . is not consistent with good science and, if not corrected, could stop the development of new emission reducing biomass energy facilities. It also could encourage existing biomass energy facilities to convert to fossil fuels or cease producing renewable energy. This is counter to our country's renewable energy and climate mitigation goals.")

- Dr. William H. Schlesinger, Member, National Academy of Sciences, et al., Letter to Congress from Scientists (May 17, 2010) ("Bioenergy can reduce atmospheric carbon dioxide if . . . bioenergy can use some vegetative residues that would otherwise decompose and release carbon to the atmosphere rapidly.")

- Environmental Defense Fund, "Comments on the Science Behind EPA's Proposed Accounting Framework for Biogenic CO_2 Emissions From Stationary Sources" (Oct. 18, 2011) ("enterprises should be allowed . . . to demonstrate that they are using biomass sourced from materials with no or limited impacts on net emissions. . . . Those who can demonstrate they are using wastes and other low emissions feedstocks would be assigned a BAF of 0 or near 0.") (p.5)

SB 590 - Blaylock Testimony.pdf
Uploaded by: Frazier Blaylock
Position: UNF

COVANTA
Powering Today. Protecting Tomorrow.

Frazier Blaylock

Senior Director

Government Relations

Covanta

4960 Fairmont Avenue #605

Bethesda, MD 20814

Testimony by Frazier Blaylock
Before the Senate Education, Energy and Environment Committee
In Opposition to SB 590
February 28, 2023

Good afternoon, my name is Frazier Blaylock and I work for Covanta Energy, which has provided reliable, cost-effective materials management and the generation of clean, renewable energy for Montgomery County since 1995. We operate the County's waste transfer station at Shady Grove and the waste-to-energy facility that the County owns located in Dickerson.

I am here today to express our opposition to SB 590, 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 this facility brings to our communities and treat it unfairly in the very competitive energy and disposal markets.

WTE is a clean, local, efficient, and economical form of renewable baseload energy production and post-recycled waste disposal that helps Maryland divert waste from landfills while producing energy to reduce our reliance on fossil fuels. These plants can be located close to population centers where trash is generated, and thus avoid the long-haul truck traffic associated with most landfill sites. In the case of Montgomery County, the trash is railed by train to Dickerson thus avoiding thousands of truck trips out of Shady Grove.

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 revenues, employment, and labor earnings derived from managing waste, producing energy, and recycling metals are the direct economic benefits of WTE.[1] Employees at WTE plants are technically skilled and are compensated at a high average wage. WTE facilities provide stable, long-term, well-paying jobs, while simultaneously infusing dollars into local economies through the purchase of local goods and services.

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 "refined, clean, well-managed application for energy production."[2] 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 CO2. The IPCC called waste-to-energy a "key GHG mitigation measure." This is done 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.[3] EfW facilities generate carbon offsets credits under both the Clean Development Mechanism (CDM) of the Kyoto Protocol and voluntary carbon offset markets.[i,ii]

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[2] 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.

The benefits of diverting waste away from landfills to recycling and energy recovery are clearer than ever. 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.

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_2 over 100 years, and 84 times stronger over 20 years, when all of its impacts are considered.[iii] States currently leading on climate, like New York and California, have adopted methane's 20-year GWP in planning and legislation.

To remove WTE from Tier one and yet leave landfill gas in Tier 1 is counter to the US and EU waste hierarchies and counter to Maryland's goal of reducing the GHG's that contribute to climate change.

For the reasons stated in this testimony, Covanta strongly opposes SB 590. Thank you for your consideration of these remarks, I am glad to answer any questions.

---

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

[ii] 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.

[iii] The IPCC concluded that "it is likely that including the climate-carbon feedback for non-CO_2 gases as well as for CO_2 provides a better estimate of the metric value than including it only for CO_2." 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

SB0590 - Reclaim Renewable Energy Act - Oppose.pdf
Uploaded by: Grayson Middleton
Position: UNF

Educate. Advocate. Innovate.

Date: February 27, 2023
To: Members of the Senate Committee on Education, Energy, and the Environment
From: Holly Porter, Executive Director
Re: SB 0590 – Reclaim Renewable Energy Act of 2023 – **OPPOSE**

Delmarva Chicken Association (DCA) the 1,600-member trade association representing the meat-chicken growers, processing companies, and allied business members on the Eastern Shore of Maryland, the Eastern Shore of Virginia, and Delaware opposes SB 590 and urges an unfavorable committee report.

SB 590 alters the definition of "Tier 1 renewable source" for purposes of excluding energy derived from qualifying biomass, methane from anerobic decomposition of animal waste or poultry waste, poultry litter-to-energy, waste-to-energy, refuse-derived fuel, and thermal energy from a thermal biomass system from being eligible for inclusion in the renewable energy portfolio standard.

The chicken community has been a leader in sustainability among agricultural enterprises for over three decades. We were among the first group in the region to widely adopt solar energy, and were among the first to seriously study and implement ways in which our waste and bi-product could be minimized and reused. Chicken litter, which was once a nuisance for poultry farmers, is now a widely sought after and easily profitable fertilizer. Perdue Farms was a pioneer when they developed one of the first manure pelletizing plants in the country, whereby chicken litter was processed into dry pellets for use as fertilizer by farmers and home gardeners. This product was shipped around the country and diverted tons of chicken litter from the region. Unfortunately, it never turned a profit, and that Seaford, DE facility is once again serving as ground zero in the region for a new and exciting technology which will once again (albeit more efficiently) turn waste into a valuable product through anaerobic digestion. This technology also has major potential for the Maryland chicken community.

We at DCA fully support the use of anaerobic as just one of many possible tools for food and animal waste, particularly from poultry processing plants. This technology has been proven as an energy efficient process whereby waste is converted into clean burning natural gas and nutritious soil amendments. This is also a green technology. Anaerobic digestion diverts waste from treatment plants and landfills and reduces the need to obtain natural gas from other sources, such as fracking.

For more than 20 years, anaerobic digestion has been successfully implemented throughout the European Union and receives substantial incentives both from the EU and its constituent nations as a renewable energy source. As of 2016, there were approximately 17,500 anaerobic digestion plants throughout the EU, with most of them in Germany. These countries have seen significant decreases in food and animal waste going to landfills and treatment plants, and the biproduct is widely regarded as a green and even preferable alternative to commercial fertilizer.

For numerous years, many of the same proponents to this bill have been claiming that there is excess litter on the Eastern Shore of Maryland and that farmers should not be using it as slow-release organic fertilizer out of concerns that it is polluting local waterways and the Chesapeake Bay. While DCA does

not agree with those claims, we do support any initiatives that would increase the value of this product to our growers, and we support alternative energy uses for other processing wastes.

In 2013, with support by the Maryland legislature, the Animal Waste Technology Fund was created through the Maryland Department of Agriculture to provide grants to companies that demonstrate new technologies on farms and provide alternative strategies for managing animal waste, including generating energy. SB 590 would have a negative effect on this program, removing the ability for companies to utilize the Tier 1 renewable energy credits (RECs) as part of their business model. This could also result in the state not being able to achieve its nutrient reduction goals for the Chesapeake Bay.

Technology on litter-to-energy and anerobic digestion projects has advanced greatly over the past decade. To have another alternative for both litter and/or processing or food waste not only benefits the environment, but also helps with the state's goals for renewable energy and is a win for everyone. The Greenhouse Gas Emissions Reduction Act Plan requires reducing GHG emissions by 50% before 2030 and replacing fossil fuel systems with clean, renewable energy. By removing the options of using anerobic digestion or litter-to-energy, the state will continue to increase what goes to landfills, increasing methane emissions from landfills and CO2 emissions from transportation, and the amount of fossil fuels that are imported into the state.

Some groups have claimed that these types of "dirty projects" will allow the chicken community to increase the production of waste or litter. However, chickens are not grown on the Eastern Shore of Maryland for the litter; chicken is not harvested at plants on the Delmarva for the processing waste. In reality, Delmarva has seen a 3.4% decrease over the past 20 years of chickens processed with the closing of processing plants on Delmarva, not new ones opening. The ability to have litter-to-energy projects or anerobic digestion is a solution, not a problem.

We urge an **unfavorable** vote on SB 0590.

Should you have any additional questions, please feel free to contact me at porter@dcachicken.com or 302-222-4069 or Grayson Middleton at middleton@dcahicken.com or 410-490-3329.

Sincerely,

Holly Porter
Executive Director

2023 SB 590 Testimony Enviva.pdf

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February 27, 2023

The Honorable Brian Feldman
Chair, Education, Energy, and the Environment Committee
Maryland General Assembly
Annapolis, Maryland 21401

The Honorable Cheryl Kagan
Vice Chair, Education, Energy, and the Environment Committee
Maryland General Assembly
Annapolis, Maryland 21401

RE: Senate Bill 590 (SB590)

Dear Chair Feldman and Vice Chair Kagan:

Thank you for the opportunity to submit testimony on Senate Bill 590 (SB590).

Maryland-based Enviva is the world's largest producer of industrial wood pellets, which provide a sustainable, scalable and renewable alternative to fossil fuels. Wood pellets can also be used in hard-to-decarbonize industries, like lime and steel, and for sustainable aviation fuel to lower these end products' lifecycle greenhouse gas emissions.

Enviva has nearly 200 associates based out of its corporate office in downtown Bethesda; many of our associates live in Maryland and contribute to the region's economy. Enviva's manufacturing and shipping operations are spread from Virginia to Mississippi at over a dozen locations and support more than 4,000 jobs, generating approximately $3 billion in annual economic activity. Enviva is laser-focused on mitigating the effects of climate change, one of the most challenging issues of our time, by providing a renewable, dispatchable, alternative to fossil fuels.

Enviva is submitting these comments opposing the current form of SB590 because it seeks to remove woody biomass from Maryland's Renewable Energy Portfolio Standard -- this action would be inconsistent with leading climate science and the policies of other leading economies.

According to U.S. Forest Service FIA data[1], only approximately 3% of the timber lands in the states where Enviva sources wood is harvested each year. Enviva augments the productivity of working forests by purchasing the parts of the harvested wood that are generally not utilized in other higher-value markets, such as the tops and limbs of trees, crooked or diseased trees, slash, understory, and thin tree lengths. Without a market like ours, low-value wood would be left as waste in the forest or burned instead of displacing fossil fuels. While Enviva is a small part of the forest products industry, we play an important role in our sourcing region by creating a market for sustainable low-value wood that encourages good forest stewardship and incentivizes forest landowners to replant and keep their land as forests.

SB590 is contradictory to internationally recognized science from the United Nation's Intergovernmental Panel on Climate Change (IPCC). The IPCC Sixth Assessment on Climate Change Impacts, Adaptation, and Vulnerability[2] released last year, continues to recognize sustainable forest management and bioenergy as essential climate solutions. IPCC scenarios show that the use of biomass and bioenergy is critical to all pathways that limit temperature rise to 1.5℃.

SB590 is also in conflict with the net-zero strategy outlined by President Biden, which specifically identifies biomass as critical to decarbonizing the energy sector.[3] Additionally, the recently passed Inflation Reduction Act (IRA) expands and extends federal tax credits for electricity and liquid aviation fuels (SAF) created from biomass; SB590 runs counter to this recently enacted federal legislation.[4] Furthermore, biomass is a significant source of renewable energy in the European Union (majority share of the EU's renewable portfolio), the United Kingdom, Japan, and elsewhere, because of a strong scientific foundation for its use.

Decarbonizing aviation fuel with the development of scalable SAF technologies is a goal of the Biden Administration; the Administration has kicked off the *SAF Grand Challenge* "which intend[s] to accelerate the research, development, demonstration, and deployment needed

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[1] FIA EVALIDator
The 3% harvested value represents the acreage of forest land that has been harvested in Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Virginia compared to the total acreage of forested lands in these states in the USFS FIA database.
[2] IPCC, 2022: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. In Press.
[3] United States Department of State and the United States Executive Office of the President, 2021: The Long-Term Strategy of the United States. Pathways to Net-Zero Greenhouse Gas Emissions by 2050. Page 47.
[4] https://biomassmagazine.com/articles/19252/house-passes-inflation-reduction-act

for an ambitious government-wide commitment to scale up the production of SAF to 35 billion gallons per year by 2050. A near-term goal of 3 billion gallons per year is established as a milestone for 2030."[5] To reach the Administration's goal by 2050 they are arguing for an "all-of-the-above" approach which includes "the collection and use of currently nonmarketable woody biomass."[6] SB590 runs counter to the goal of SAF development.

In-line with the latest science and with the policies of other leading economies, Enviva urges Members of the Committee to oppose SB590.

Thank you for your consideration. We are happy to discuss this matter in greater detail.

Sincerely,

Jason Eberstein
Vice President, Government Relations

[5] https://www.energy.gov/eere/bioenergy/sustainable-aviation-fuel-grand-challenge
[6] https://www.energy.gov/sites/default/files/2022-09/beto-saf-gc-roadmap-report-sept-2022.pdf Page 12

Hinson SB 590 Testimony.pdf
Uploaded by: Joe Hinson
Position: UNF

Statement of Joe Hinson
Licensed Professional Forester #765
Before the
Senate Energy, Environment and Education Committee
February 28, 2023

Re: SB 0590- Renewable Energy Portfolio Standard- Alterations (Reclaim Renewable Energy Act of 2023)

Chairman Feldman, Vice-Chair Kagan, and Members of the Committee,

I am Joe Hinson, licensed professional forester in Maryland. I have been a forester for over 50 years. I'd like to discuss the implications of a market for woody biomass renewable energy for forest management.

This is a section of an approximately 11-inch tree that is 25 years old. Each ring represents a year's growth. As you can see, the tree grew rapidly in its earliest years, adding about 0.8 inches in diameter each year. But about age 10, growth began to slow down as the crowns of neighboring trees closed in, limiting the available sunlight to each. Then, when the stand was 20 years old, foresters thinned it, removing about 30 percent of the trees, mostly those that were lower quality, suppressed and with no chance of becoming a more valuable tree for timber. After the thinning, the growth accelerated, adding wood and value plus storing carbon at a much higher rate.

This tree represents the component of a stand that is always present—same age but markedly smaller. It is 18 years old. It is about half the size of the larger tree when it was 18 years old. This is because this tree is for whatever reason genetically predisposed to grow more slowly so it could not compete with its larger neighbors in the stand. It's crown was small, it received little sunlight and has basically ceased to grow. Sooner rather than later, it will die and decompose, releasing the relatively small amount of carbon stored in it.

Finally, we have a tree 15 years old. It is 2 ½ inches in diameter and suppressed within a stand where its neighbors average about 9 inches in diameter. The growth rings are so narrow that they are hard to see. It, too, will die in the stand.

The latter two trees represent those that are removed during a thinning if there is a market for biomass energy. They will be chipped and used for that purpose. Energy from this source has value and there are no economically viable uses for wood from trees this size.

If we have a market for woody biomass energy, we have a use for the smaller trees we remove during a thinning operation. We can harvest these trees and increase and concentrate the growth of wood on the trees that can ultimately be made into higher value products.

Renewable energy credits add more value to even the smaller trees. For the forest products industry trucking is the biggest variable cost. There are areas of the state like lower Dorchester County that are so far from any mill that most logging, particularly for low value products is uneconomical, just because of the cost of trucking it to the closest mill. The value added to this wood from RECs allows us to range farther and complete thinning and other logging projects in stands of marginal economic value. These credits also open the door for commercial use of the vast amounts of waste wood piling up in urban areas for which there is no present market.

In short, RECs allow the economical use of wood for which there are no other markets. We have to take advantage of this opportunity.

Thank you.


20 SCALE
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Testimony SB 590.pdf
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THE BOARD OF GARRETT COUNTY COMMISSIONERS

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Kevin G. Null

County Attorney
Gorman E. Getty III

February 27, 2923

The Honorable Brian J. Feldman, Chair
MD Education, Energy, and the Environment Committee
Miller Senate Office Building
2 West
Annapolis, Maryland 21401

REFERENCE: OPPOSE – SENATE BILL 590
Renewable Energy Portfolio Standard – Eligible Sources – Alternations (Reclaim: Renewable Energy Act of 2023)

Dear Chair Feldman and Members of the Committee:

The Board of Garrett County Commissioners wishes to express its strong opposition for Senate Bill 590 – Renewable Energy Portfolio Standard – Eligible Sources – Alternations (Reclaim: Renewable Energy Act of 2023) due to the impact this Bill would have on forest industry businesses, landowners, forestry professionals, sporting groups, and concerned citizens in Western Maryland.

Energy from woody biomass serves Maryland very well in several ways from reaching environmental goals, energy independence, maintaining and improving forest stands. Biomass energy provides Maryland taxpayers with a sensible return on investment in their environment and community.

This Bill, as written, would eliminate the future potential for biomass systems to qualify for renewable energy credits with severe implications for forestry, wood waste, and bioenergy operations. It would increase the amount of waste sent to landfills, reduce jobs, prevent Maryland from reaching its environmental goals by 2023.

Enactment of this legislation will create another financial hardship for an industry which has already been severely impacted by a weak economy. Therefore, the Board of County Commissioners asks for an unfavorable review of Senate Bill 590

On Behalf of the Board,

Paul C. Edwards
Chairman

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Position: UNF

SOUTH MOUNTAIN MICROFARM

south.mtn.microfarm@gmail.com 6138 Clevelandtown Road, Boonsboro, MD 21713

February 27, 2023

Senator Brian Feldman, Chair
Education, Energy, and the Environment Committee
2 West Miller Senate
11 Bladen Street, Annapolis, MD 21401
Subject: Strong Opposition of SB0590

Dear Senator Feldman and Committee Members,

I ask that you oppose SB0590. This bill alters the definition of "Tier 1 renewable source" for purposes of excluding energy derived from qualifying biomass, methane from the anaerobic decomposition of organic materials, fuel cells, poultry litter-to-energy, waste-to-energy, refuse-derived fuel, and thermal energy from a thermal biomass system from being eligible for inclusion in the renewable energy portfolio standard.

SB590 is a grave mistake as it not only clearly favors two very specific industries, but creates barriers and challenges for so many existing Maryland business, citizens, communities, and municipalities. Additionally, SB590 diminishes opportunities for new and improved, creative and sustainable methods of producing energy in Maryland.

SB590 is detrimental to Maryland farmers, entrepreneurs, citizens, jurisdictions, or progressive minded think-tanks who may be focused on combatting climate change in new and more efficient, organic ways using biomass and other organic materials already available or yet to be cultivated in Maryland. It is my strong belief that this bill serves to elevate specific industries only while oppressing others.

SB590 poses negative impacts to Maryland agriculture, farmland, renewable power innovation, and municipalities. This bill forces municipalities and Maryland institutions to sell their REC's out of state and to potentially lose value for their REC's altogether.

Please note that farms are currently producing eligible biomass and could potentially produce tons of biomass in the future with viable, existing and future agricultural crops and livestock. Agriculture provides natural and organic waste material from sustainable farming practices and Maryland is poised for innovation with our new governor's focus on renewable resources, food security and social equity. Our farms provide food to our own citizens and the future of renewable energy and farming's inclusion thereto is of utmost importance for clear and present threats and needs.

Since one of our state's clear initiatives is food security and food availability for all communities, this bill could not only minimize Maryland's opportunities for future innovation, but also to de-incentivize the forestry and agricultural industry even more:

1) Minimizing the value of organic waste material thereby decreasing the opportunity to offset the quickly rising costs of farming

2) Minimize tillable lands by littering our viable farm land with industrial uses including solar or wind manufacturing on productive soils, thereby decreasing Maryland's ability to produce food, fiber, fuel, and animal feed for our own sustainability as food security and biofuels become more and more important in the face of climate change and social equity.

3) Devaluing agricultural land in the future due to enormous environmental impacts caused by the decommissioning of toxic waste materials from the wind and solar equipment including batteries, heavy metals, and toxic chemicals and massive amounts of plastics, vinyl, glass, and metal materials that will be cost prohibitive to decommission and then to transport to Ocean dumps or other landfills. Or, most likely, on-farm "newly approved" toxic dumps.

4) Minimize forest farming and re-forestation opportunities in Maryland by removing agriculturally zoned land from inventory by covering and coating these acres with solar and wind equipment that will require decommissioning in the future.

    a. Forest Farming not only feeds generations to come, but also cleans the air and provides for the reforestation credits and provides organic biomass in the for energy production.

I see SB590 as a major threat to Maryland's existing and future farms, farming, farmers, municipalities, small renewable energy businesses, Maryland entrepreneurs, reforestation, food security, social equity, innovation for renewable energy from organic materials and biomass, agriculturally zoned lands, open spaces, and sustainability.

I hereby respectfully request that you oppose SB590.

Sincerely,

Matthew W. "Levi" Sellers

MD Ag. Commission Representative & Manger of Operations- South Mountain MicroFARM

SB590 - RMC Opposition Testimony - Renewable Energ
Uploaded by: Megan D'Arcy
Position: UNF

50 Harry S. Truman Parkway • Annapolis, MD 2140
Office: 410-841-5772 • Voice: 410-841-5761 • TTY: 800-735-2258
Email: rmc.mda@maryland.gov
Website:rural.maryland.gov

Testimony in Opposition of
Senate Bill 590 – Renewable Energy Portfolio Standard – Eligible Sources – Alterations (Reclaim Renewable Energy Act of 2023)
Education, Energy, and the Environment Committee
February 28, 2023

The Rural Maryland Council opposes Senate Bill 590 – Renewable Energy Portfolio Standard – Eligible Sources – Alterations (Reclaim Renewable Energy Act of 2023). The passage of this bill will impact rural and agricultural parts of the State by excluding energy derived from several of the current sources that are considered Tier 1 renewable resources in the State Renewable Energy Portfolio. The exclusion of these materials will result in more waste materials that could be used for clean renewable energy and also negatively impact the individuals, businesses, and farmers that take advantage of the materials that are currently listed as Tier 1 renewable resource.

The removal of food waste would result in more wasted food going to landfills. In 2015, the US Environmental Protection Agency and the US Department of Agriculture announced a national goal to reduce food waste by 50% by 2030. According to the Maryland Department of the Environment, over nine hundred thousand tons of food waste is generated annually and only a small portion is recycled while a majority is disposed of in landfills or incinerated. Food waste as a renewable fuel source can provide significant contributions towards on-farm energy use, revenue generation, and climate change mitigation. An example of this is a partnership between West Nottingham Academy and Kilby Farm Creamery located in Cecil County, Maryland. In partnership, the school diverts nearly 7 tons of food waste annually from their dining hall to the farm digester where it becomes compost and energy to run the farm.

The Maryland Department of Agriculture currently works to fund the construction of anaerobic digesters in Maryland. The construction of the Bioenergy Devco facility at the Maryland Food Center Authority was completed in 2021. According to Bioenergy Devco's website, the facility is capable of recycling 115,000 tons of organics annually to produce approximately 265,000 MMBtu of renewable natural gas and 20,000 tons of soil amendment for agricultural and other land use. The resulting greenhouse gases prevented from being released into the atmosphere have the equivalent environmental impact of a 47,000-acre forest, or 56 times the size of Central Park.

The bill's removal of poultry liter could also significantly impact Maryland's poultry farmers. Construction is underway for CleanBay Renewables Westover bio-refinery which, using anaerobic digestion, will recycle more than 150,000 tons of chicken litter annually and convert it into renewable natural gas and a nutrient-rich fertilizer product. By repurposing a potential source of excess nutrients, CleanBay can generate 765,000 MMBTUs of sustainable renewable natural gas, which it will sell to Chesapeake Utilities.

The State of Maryland also recently invested in an anaerobic digester as part of the natural gas pipeline to the University of Maryland Eastern Shore and the Eastern Correctional Institute. This digester and pipeline will provide a cleaner and cheaper energy resource to a minority and low-income area. The current Tier 1 renewable resources provide positive economic and environmental impacts to Maryland.

The Rural Maryland Council respectfully requests your opposition of Senate Bill 590.

SB0590_UNF_NWRA_RPS - Eligible Sources - Alteratio

Uploaded by: Pam Kasemeyer

Position: UNF

wasterecycling.org

Maryland-Delaware Solid Waste Association
a chapter of the
National Waste & Recycling Association℠
Collect. Recycle. Innovate.

TO: The Honorable Brian J. Feldman, Chair
Members, Senate Education, Energy, and the Environment Committee
The Honorable Karen Lewis Young

FROM: Pamela Metz Kasemeyer
J. Steven Wise
Danna L. Kauffman
Andrew G. Vetter
410-244-7000

DATE: February 28, 2023

RE: **OPPOSE** – Senate Bill 590 – *Renewable Energy Portfolio Standard – Eligible Sources – Alterations (Reclaim Renewable Energy Act of 2023)*

The Maryland Delaware Solid Waste Association (MDSWA), a chapter of the National Waste and Recycling Association, is a trade association representing the private solid waste industry in the State of Maryland. Its membership includes hauling and collection companies, processing and recycling facilities, transfer stations, and disposal facilities. MDSWA and its members **oppose** Senate Bill 590.

Senate Bill 590 proposes to alter the definition for a number of current energy sources from a "Tier 1 renewable energy source" and then repeals many of them as Tier 1 sources or the change in definition essentially negates the Tier 1 status. These sources include energy derived from certain types of qualifying biomass, methane from anaerobic digestion under certain conditions, poultry litter-to-energy, waste-to-energy, and energy from a thermal biomass system. MDSWA does not support the removal from Tier 1 of any of the sources proposed for exclusion by this legislation and/or their altered definitions. However, it specifically wishes to register its opposition to the removal of refuse derived fuel and waste-to-energy.

Landfills are an essential component of the management of the State's waste stream. MDSWA strongly supports the reduction, reuse, and recycling of waste and is actively involved in efforts to enhance Maryland's recycling and waste recovery infrastructure. However, there will always be a need to landfill some portion of the waste stream. Methane recovery and conversion to an energy source is critical to the State's efforts to reduce greenhouse gas emissions and has proven to be a reliable and cost-effective source of renewable energy. It should not be removed from Tier 1. Similarly, waste-to-energy is not only a renewable source of energy, it is regarded by the U.S. Environmental Protection Agency as a reliable and responsible method of waste disposal, and is subject to stringent state and federal air, water, and solid waste regulations. As the Association representing the entire private solid waste industry, we are deeply concerned about how this bill will affect the landfills and waste-to-energy facilities in the State of Maryland and the jurisdictions that rely on them for management of their solid waste.

Removing methane recovery from landfills and waste-to-energy would be a step backward from the goal of increasing the availability of renewable energy in Maryland and would negatively impact the solid waste infrastructure of the State. As such, an unfavorable report is requested.

Peter Oven comments SB590.pdf
Uploaded by: Peter Oven
Position: UNF

Statement of Peter Oven
Project Manager, Wilson Engineering Services, PC
Before the Senate Energy, Environment and Education Committee
February 28, 2023

Re: SB 0590- Renewable Energy Portfolio Standard- Alterations (Reclaim Renewable Energy Act of 2023)
Position: Unfavorable

Chairman Feldman, Vice-Chair Kagan, and Members of the Committee,

My name is Peter Oven and I am a project manager with Wilson Engineering Services in Meadville, Pennsylvania. I have worked with clients across the country to identify and implement dozens of economical and sustainable decarbonization projects using various technologies. Thank you for the chance to speak about why Senate Bill 590's exclusion of saw mill residue and soft wood thinning residue from the RPS is not a good policy for Maryland.

Having options for the beneficial use of these wood residues is critical to forest management and the survival of the forest products industry in rural and urban Maryland. The absolute worst fate for these residues is for them to have no beneficial use and be treated as waste with a fate such as being piled to rot, open burning, or landfilling. Substituting wood residue for fossil heating fuel is a market opportunity which has a co-benefit of helping the State meet aggressive GHG goals. Heating is a highly efficient use of this residue material, provides major GHG benefits, and gives the material value to enable more cost-effective forest management.

Beneficial use of wood residue for heating is part of the RPS in Massachusetts, Vermont, New Hampshire, and Maine and this has resulted in beneficial use of wood residues in these states to offset fossil fuel. Dozens of thermal projects in these states are a direct result of these Renewable Energy Credit incentives, that would have otherwise continued burning fossil fuel for heating.

Meeting carbon goals for Maryland requires immediately changing the major reliance on fossil fuel for all modes of energy, heat, and transportation. This requires leveraging all of the clean options because there is no one technology or pathway that can meet the carbon goals on its own. Wood residue produced in Maryland and used for heating in Maryland wants to be a part of that future—providing jobs, healthy forests, local wood products, and renewable heating.

Testimony SB590.pdf
Uploaded by: Shelby Watson-Hampton
Position: UNF

POSITION STATEMENT
Opposition of SB0590
Renewable Energy Portfolio Standard- Eligible Sources- Alterations (Reclaim Renewable Energy Act of 2023)

As Director of the Southern Maryland Agricultural Development Commission (SMADC), I am requesting that you provide an **unfavorable report** for SB590.

As our forests are one of our greatest renewable resources and a key component of the agricultural industry in Maryland, they deserve a place in Maryland's RPS. Biomass energy provides Maryland taxpayers with a sensible return on investment in their environment and community. Unlike fossil fuels, biomass energy must be sourced locally from forestry projects or urban wood waste. The price of biomass residues has been consistent over the years and does not fluctuate like the price of oil or gas. Expanding the biomass energy sector has also been found to support local economies and job growth since money spent on wood residues remains in the community, particularly in rural areas of the State.

This bill, as written, would eliminate the future potential for biomass systems to qualify for "renewable energy credits" with severe implications for forestry, wood waste, and bioenergy operations. The opposition to wood energy is often based on misconceptions that biomass systems are "dirty" and cannot meet Maryland's stringent air quality standards or question the sustainability of the wood supply. Neither of these claims is factual.

In summary, SB 590 would, if passed, increase the amount of waste (both wood and municipal) that is sent to landfills and/or trucked out of State to locations with less stringent environmental regulations for disposal, increasing methane emissions from landfills and CO2 emissions from transportation, reduce jobs in sectors such as renewable energy, logging, transportation, chipping, waste management, and forestry, and prevent Maryland from reaching its environmental goals by 2030 and beyond.

I humbly request that the committee members give an UNFAVORABLE REPORT to SB 590 and urge the Committee to continue to look for more sustainable options that encourage a diverse renewable energy portfolio while Maryland divests itself from fossil fuels, becoming energy independent.

Thank You,

Shelby Watson-Hampton
Director, Southern Maryland Agricultural
Development Commission (SMADC)
swatsonhampton@smadc.com
www.smadc.com
(240) 304-8535

SB0590_UNF_NOVEC_RPS - Eligible Sources - Alterati

Uploaded by: Steve Wise

Position: UNF

PO Box 2710 • Manassas, VA 20108-0875 • (703) 335-0500

TO: The Honorable Brian Feldman, Chair
Members, Senate Education, Energy & Environment Committee
The Honorable Karen Lewis Young

FROM: Michael J. Dailey, Vice President, Energy & Business Development

Michael J. Dailey
Digitally signed by Michael J. Dailey
Date: 2023.02.27 08:41:22 -05'00'

DATE: February 27, 2023

RE: *OPPOSE – Senate Bill 590 – Renewable Energy Portfolio Standard – Eligible Sources – Alterations (Reclaim Renewable Energy Act of 2023)*

Northern Virginia Electric Cooperative (NOVEC) is a member-owned electric distribution cooperative headquartered in Manassas, VA. NOVEC provides reliable electric service to more than 176,000 homes and businesses in Clarke, Fairfax, Fauquier, Loudoun, Prince William, and Stafford counties, and serves a portion of its members' energy requirements through the operation of its waste-wood fueled biomass electric generating facility in Halifax County, Virginia. NOVEC opposes Senate Bill 590 for the reasons set forth below.

Senate Bill 590 would limit the definition of a Renewable Energy Portfolio Standard (RPS) – TIER 1 Renewable Resource by excluding "waste-wood" biomass as a qualified biomass. The Maryland General Assembly correctly excluded black-liquor biomass in a previous session but taking that even further to exclude waste-wood biomass would be a grave mistake in terms of its impact on the forest industry, the environment, and the Maryland economy.

Waste-wood biomass is an important part of proper forest management and timber production and provides a mechanism to manage municipal yard waste instead of delivering the waste products to landfills or disposing of them through open-air fires. The burning of these woody waste products in open fires results in the release of uncontrolled pollutants including greenhouse gas constituents. In contrast, having the wood-waste byproduct delivered as fuel to a biomass facility results in a controlled burn action that reduces pollutants to acceptable air quality standards as well as providing desired renewable electricity.

The removal of wood waste from timbered lands allows landowners to replant 100% of the land surface, helping to keep the forest heathy and viable. Additionally, the ash created from the combustion process can be captured and spread over agricultural lands and timbered lands as a soil amendment that acts as a liming agent and provides additional natural nutrients back into the soil. The application of this ash has been shown to increase the production of crops on fields where it has been applied as compared to those that had lime applied.

Finally, excluding waste-wood biomass plants from outside of Maryland, like NOVEC's, would limit the number of qualified renewable resources eligible to serve the Maryland RPS, increasing the likelihood of higher Renewable Energy Certificate (REC) prices being paid by Marylanders.

For these reasons, NOVEC urges an unfavorable report on Senate Bill 590.

Statement of Tom Johnson, Eastern Shore Forest Pro

Uploaded by: Tom Johnson

Position: UNF

Statement of Tom Johnson, President
Eastern Shore Forest Products
Before the
Senate Energy, Environment and Education Committee
February 28, 2023

Re: SB 0590- Renewable Energy Portfolio Standard- Alterations (Reclaim Renewable Energy Act of 2023)

Chairman Feldman, Vice-Chair Kagan, and Members of the Committee,

I am Tom Johnson, President, Eastern Shore Forest Products, headquartered in Salisbury, Maryland. Our company, now the largest forest products company in Maryland, makes wood shavings for poultry and animal bedding along with pellets and firewood for energy. We have four manufacturing facilities in Maryland as well as plants in Delaware and Texas. We are a growing company, now employing over 200 people in the state with an equal number working as contractors or in support industries.

Last December, the Public Service Commission approved our application for renewable energy credits (RECs) for the biomass-fueled thermal systems to dry pellet stock and wood shavings at our Pocomoke City and Salisbury plants. These will be the first biomass credits in the state. Our systems are high tech and clean burning, exceeding all state and federal standards for emissions, one of the requirements for qualifying for RECs. These are a vital element of our renewable energy program and without them, any future expansion would likely require fossil fuel rather than renewables.

The fuel for these systems includes bark, short or crooked pieces of logs as well as chips from tree care companies in the area. These systems also provide a market for smaller, suppressed trees in forest stands, allowing us to thin them while increasing species diversity and wildlife habitat. Many, perhaps most, of the landowners from whom we purchase timber have wildlife as their major goal and are appreciative of our work. Managed forests require a market for the low-grade material that must be removed and urban wood will likely need to be landfilled if the market for renewable biomass fuel dries up due to the loss of RECs.

We are currently in the process of upgrading our biomass systems and installing the complex metering systems that are required to take advantage of the RECs. As you might imagine, this is an expensive investments, but we are proud that our efforts will lead the way for other public and private facilities to take advantage of renewable biomass energy.

The passage of HB 718 and SB 590 forecloses all future opportunities for investments in biomass energy by removing that option from the Renewable Energy Portfolio Standards. Without that incentive, wood with no other market will be wasted, timber stands will not be thinned as needed and urban wood waste will continue to pile up.

Finally, it seems inherently ill-advised for the Legislature, having created renewable energy credits with the express intent of encouraging renewable energy, including biomass, and then taking the incentive away, I'm not sure this sends those who would do business in Maryland a very encouraging message.

I, along with our employees and our landowner partners urge the defeat of this legislation.

Biomass Burner at Salisbury Plant in Full Operation

AFI's Testimony in Opposition to SB 590.pdf
Uploaded by: william miles
Position: UNF

ASSOCIATION OF FOREST INDUSTRIES, INC.

P.O. Box 501
Huntingtown, Maryland 20639

February 28, 2023

THE HONORABLE BRIAN J. FELDMAN, CHAIRMAN
HONORABLE MEMBERS, SENATE EDUCATION, ENERGY AND THE ENVIRONMENT COMMITTEE

OPPOSITION: SENATE BILL 590 Renewable Energy Portfolio Standard – Renewable Energy Portfolio Standard – Eligible Sources – Alternations

The Association of Forest Industries serves as the voice of Maryland's forest products industry at the State and local level. And we are strongly opposed to SB 590 for reasons abbreviated herein.

Enactment of Senate Bill 590 would undermine, among other things, Maryland's **2030 GGRA Plan** and Maryland's nationally acclaimed **Sustainable Forestry Act of 2009.**

file:///C:/Users/billm/Downloads/2030GGRAPlanExSum01272021.pdf
https://mgaleg.maryland.gov/2009rs/bills/sb/sb0549t.pdf

*Relevant Excerpt from Maryland/s **2030 GGRA Plan:***

Carbon Sequestration on Natural and Working Lands

In addition to reducing GHG emissions from sources throughout Maryland, the 2030 GGRA Plan includes measures to pull more CO2 out of the atmosphere through improved management of Maryland's forests and farms. Forests store large amounts of carbon both above ground and in the soil…

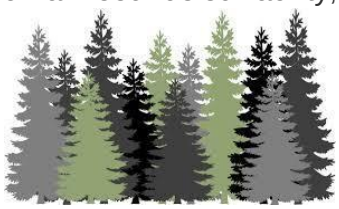
Improved Forest Management and Tree Planting

Maryland's forests play an important role in mitigating GHG emissions and actions are being taken by the State to enhance this conservation practice***. Enrolling previously unmanaged forests into sustainable management regimes enhances forest productivity which increases rates of carbon sequestration in forest biomass and the amount of carbon stored in harvested durable wood products. Increasing forest management has economic benefits and results in additional availability of renewable biomass for energy production.*** The 2030 goals for managing Maryland forests are to provide sustainable forest management on 38,000 acres of private land annually, ensure greater than 50% of State-owned forest lands will continue to be third-party certified as sustainably managed, support forest markets that keep land in forest use, and provide sustainable for multiple benefits on other State lands where possible. In addition to managing existing forests many new trees are planted in the State every single year. These plantings expand the State's forest cover and stores of carbon by regenerating or establishing healthy, functional canopies and forests utilizing practices such as soil preparation, erosion control and supplemental planting. By 2030, the goal is to achieve afforestation or reforestation of 68,530 acres in Maryland, including 4.6 million trees. The 2030 GGRA Plan also includes planting 2.65 million urban trees, for a total of 7.25 million trees planted by 2030.

Relevant Excerpts from the ***Sustainable Forestry Act of 2009***

> WHEREAS, A sustainably managed forest system also helps to promote domestic renewable energy production and clean green energy produced in-State from biomass, including forestry residues, which are vital, not only to securing energy independence, smaller trade deficits, economic growth, and clean air and water, but also to facilitating compliance with the 2010 goals of the Chesapeake 2000 Agreement, the nutrient reduction goals of the Water Quality Improvement Act of 1998 and the land conservation goals of the 2007 Forestry Conservation Initiative.
>
> NR §5-102: The General Assembly finds..."Forests and trees are key indicators of climate change and can mitigate greenhouse gas reductions by carbon sequestration...Forests are a renewable resource that help the State meet its renewable energy goals that are consistent with the State's (1) green power goal for State facilities; (2) Renewable Energy Portfolio Standard; (3) Healthy Air Act; and (4) Maryland Clean Energy Incentive Act of 2006…It is the policy of the State to promote renewable energy policies and markets with increased emphasis on the use of in-State produced woody biomass."
>
> SECTION 8. AND BE IT FURTHER ENACTED That Maryland's green power goal for procurement of renewable energy by State government be met, to the extent practicable, through the provision of financial and other incentives intended to promote in-State production of renewable energy, w**ith due consideration afforded biomass-fueled facilities.**

IN THE FINAL ANALYSIS, State law and climate change advocates mutually recognize the environmental benefits of woody biomass in helping Maryland meet its many green policy goals. Yet, there are no public-owned woody biomass-fueled facilities in Maryland, absent the Eastern Correctional Institution (Somerset County) which is slated for conversion to natural gas, aka a fossil fuel. Enactment of Senate Bill 590 will close the door to renewable energy production from Maryland's most available, affordable, and abundant renewable energy source, aka wood. Maryland's forest community is working tirelessly to secure such a wood-fueled facility, especially in Western Maryland given the recent closure of the Luke Mill in Allegany County. We are hopeful common sense will ultimately prevail. However, enactment of Senate Bill 590 will help make sure that no such facilities are ever built, thus a policy clearly inconsistent with the 2030 GGRA Plan and the RPS mandate.



Where is it written that only wind, solar, hydro, and geothermal constitute clean energy sources? We made this clear during the 2021 Session when the General Assembly was about to include "mill residues" in "black liquor" with the latter's exemption via Chapter 65, among other things, from the definition of "qualifying biomass" under RPS. And look no further than New England to realize that thermal biomass systems heat/cool many of their schools, aka *Fuels in Schools*. Ask the DNR Forest Service about the volume of woody biomass statewide that could be used for in-State energy generation, especially wood waste destined today for the landfills.

And pray tell, how can Maryland expect to meet Maryland's statutory mandate of achieving "net-zero statewide greenhouse gas emissions by 2045" (Chapter 38, Acts of 2022) plus meeting its RPS mandated goals with exclusive reliance on wind, solar, hydro, and geothermal? Though Maryland has no wood fueled energy facilities today does not mean we won't tomorrow...look no further than then 2022 JCR Report promoting a forest-fueled biomass project for public schools in Western Maryland. If the General Assembly truly wants to close the door on thermal biomass, then enactment of Senate Bill 590 will do the trick. It makes no sense in view of the **2030 GGRA Plan** and the **Sustainable Forestry Act of 2009**, not to mention so much more than space and time constraints herein preclude but will most likely be made by other impacted stakeholder groups.

Sincerely,

William R. Miles, Advocate

SB0590_DNR-LOI_EEE-2-28-23.pdf
Uploaded by: Emily Wilson
Position: INFO

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Wes Moore, Governor
Aruna Miller, Lt. Governor
Josh Kurtz, Acting Secretary
Allan Fisher, Deputy Secretary

February 28, 2023

BILL NUMBER: **SENATE BILL 590 – First Reader**

SHORT TITLE: **Renewable Energy Portfolio Standard - Eligible Source - Alterations (Reclaim Renewable Energy Act of 2023)**

DEPARTMENT'S POSITION: **LETTER OF INFORMATION**

EXPLANATION OF DEPARTMENT'S POSITION

The Department would like to provide information on SB 590. The bill would eliminate the use of Thermal RECs, which provide particularly important financial incentives for developing renewable thermal uses from wood and other biomass. The thermal sector is the largest component of Maryland's total energy usage and has the least incentives for developing renewable applications.

Excluding biomass from the Maryland RPS will remove a clean and low-cost resource, eliminate a newly approved incentive for renewable thermal energy, and will put upward pressure on REC prices and perhaps consumer electricity costs.

BACKGROUND INFORMATION

Markets for woody biomass enable forest improvement, retention, and restoration critical for meeting state goals for water quality, forest health, and long-term carbon sequestration. Markets would also capture wood from urban waste streams (e.g., tree removals, recycled construction, and manufacturing wastes), converting a cost center into a new source of revenue.

On a statewide level, there are two primary effects of switching from fossil fuel to wood that have very strong positive economic effects. The first is the direct effects of beneficially using the wood residue itself. The second effect is the consequence of wood residue being less costly than heating oil, thus freeing up money for other purchasing and investment.

BILL EXPLANATION

This bill alters certain fuels from qualifying for Tier I RECs, in particular, wood sourced from forestry and landscape management activities as well as organic materials processed with anaerobic digestion. These sources are especially well suited for thermal applications, a sector particularly lacking incentives for transitioning to green solutions. SB 590 would make ineligible any Renewable Energy Credits (RECs) or Thermal Renewable Energy Credits (TRECs) derived from biomass generated anywhere within the PJM grid, which includes Maryland.

Contact: Emily Wilson, Director, Legislative and Constituent Services (Acting)
emilyh.wilson@maryland.gov ♦ 410-260-8426 (office) ♦ 443-223-1176 (cell)

SB0590(HB0718) - LOI - Renewable Energy Portfolio

Uploaded by: Landon Fahrig

Position: INFO

Maryland Energy Administration

TO: Members, Senate Education, Energy, and the Environment Committee
FROM: Paul Pinsky Director, MEA
SUBJECT: SB 590 - Renewable Energy Portfolio Standard - Eligible Sources - Alterations (Reclaim Renewable Energy Act of 2023)
DATE: February 28, 2023

MEA Position: Letter of Information

Senate Bill 590 would eliminate several forestry-related products and certain feedstocks for anaerobic digestion as Tier 1 resources within the Renewable Portfolio Standard (RPS). Unfortunately, this may have the opposite impact as intended. producing detrimental effects for Maryland farms, businesses, and the environment.

Unintended Consequences:

This legislation may contribute to an increased release of methane to the atmosphere, undermining the state's climate goals. The Maryland Energy Administration (MEA) has worked in a cooperative manner with the Maryland Department of Agriculture (MDA) to incentivize the adoption of biomass systems and anaerobic digestion (AD) as a clean and renewable energy source, and to achieve efficiency from onsite generation.

Utilizing organic materials and keeping them out of landfills is beneficial for the environment. As biomass decays in landfills, methane is released into the air and contributes to climate change. This biomass is composed mainly of organic waste from agricultural operations such as manure and poultry litter. These wastes are rich in phosphorus and nitrogen nutrients, which are incredibly harmful to the health of the Chesapeake Bay when they runoff into streams and tributaries.

Loss of Other Environmental Benefits

Several technologies exist that can use the organic wastes affected by the bill to produce renewable energy and create nutrient-rich fertilizers and other soil amendments. These solutions, which are discussed in more detail in the success story below, reduce nutrient runoff and harmful emissions. Utilizing organic waste streams to create value-added solutions produces important socioeconomic benefits: technology and waste management innovation; the monetization of waste products into previously unrealized and stable revenue streams; and the creation of clean energy jobs, especially those in underserved and rural communities. This multifaceted outcome is good for farmers, other agricultural businesses, our environment, and our state's economy.

Success Story:

One such success story involves the Maryland Department of Agriculture (MDA) Animal Waste Technology Fund (AWTF). Through the AWTF, MDA traditionally looks for innovation processes to manage animal manure on three scales-on farm, community and regional. The AWTF, with the support of the Strategic Energy Investment Fund administered by MEA, issued a $1.85 million grant to Kilby Farms in Cecil County to install a biomass-fueled AD at its 400-head dairy operation. The AD is fed by the cattle manure, and food scraps that nearby K-12 private school West Nottingham Academy diverts from traditional landfill waste streams. Utilization of both of these organic waste sources both prevents harmful nutrient runoff into the Chesapeake Bay watershed and the release of harmful emissions to the atmosphere. Additionally, it encourages direct student involvement in sustainable waste management and clean energy production, thereby creating substantial opportunities to spark local educational interest in these industries.

The AD process creates renewable natural gas (RNG) from these organic waste sources that is used to generate energy for the Kilby Farms operation. A combined heat and power (CHP) system installed onsite consumes the RNG to produce electricity for the farm and heat energy used to optimize operation of the AD. This maximizes efficiency and dramatically reduces Kilby's carbon footprint. The Kilby project also received a $115,500 grant from MEA to help offset the costs of this CHP system.

Conclusion

The Maryland market for AD and onsite renewable generation is not yet mature, and requires the continued support of direct incentives from MEA and MDA as well as the financial benefits provided by the RPS. **Passage of this bill creates a new roadblock to development of this clean energy market**.

The Maryland Energy Administration requests that the Committee consider the forgoing prior to rendering its report.

bill sb590.pdf
Uploaded by: Sharif Dendy
Position: INFO

Bill for renewable energy

Testimony on Maryland SENATE Bill SB0590:
Constitutional Amendment - Environmental Rights
TO: Senator Young, Chair, and members of the Judicial Proceedings Committee
FROM: Sharif, Progressive Maryland Environmental Justice Campaign
DATE: February 27th, 2023
POSITION: SUPPORT

Thank you for the chance to offer my own testimony for SB0590. I have recently joined the Progressive Maryland organization in hopes for putting my best foot forward and helping reduce the environmental injustices that have plagued my neighborhood, Cherryhill, as well as others it seems in disinvested communities. Decades of industrial waste have been thrown into our environments causing our areas to become brownfields versus other areas being reconstructed or built back up and given the proper resources other communities don't get a chance to receive. Mind you this is only one of the many historical or systematic injustices that have served against communities such as ours. I strongly urge you to reconsider this bill creating a better environmental future for the next generations to come.

I am 29-years-old, and have lived in Cherryhill since I was 3. Even though I wasn't fully aware of the damage that the incinerator caused I knew of what it wasn't doing indirectly without a doubt. I live on a block that's full of homeowners and families that have been in the area for 2 or more generations. It is safe to say most of the people that live on my block are home owners and over time I have see many of my older relatives or family friends on Hillview Rd pass away from causes such as cancer, respiratory diseases and issues, and these are the symptoms that I'm aware from those that were immediately around the family and myself. I myself have had type 1 diabetes since I was 6 years of age.
After being able to conduct my own research into the systemic and historical events in Baltimore that have amplified and created not just metaphysical but physical boundaries lines and areas of disinfected communities for our people.

Theories such as the "Butterfly" effect or "L"theory excuse me if I incorrectly named them but show how communities of color are being greatly affected due displacement and disinvestment over time and how these affected have created decades of mental and physical disparity in these neighborhoods. I only bring this to your attention because all of these things have played a role in the shaping of our communities as time has progressed. Being able to do community service for canoe and scoop at the Waterview boat house was a great experience but it also puts a lot into perspective in our own community. I can remember that the water wasn't but so deep in certain areas and you literally could feel the grime , sludge, and chemicals put picked up cleaning or as you towed the canoe and it was alarming.

I support this environmental cause because it isn't just for the ones we have with us but also for our next generation of loved ones to grow and have to deal with the health circumstances that plague some of us to this day. If we can come together to create changes such as this one step by step we will be able to rebuild and uplift our disinvested communities all around Baltimore and create a future for the generations to come. We shouldn't have to argue or debate over whether drinking clean water, breathing fresh air without chemical pollutants, or dealing with the severe health cases sue to where you live or the community in which you reside. We all as people deserve more from one another and I genuinely hope you support this bill to end the incinerator.

Respectfully,
Sharif , Member
Environmental Justice Campaign

bill sb590.pdf
Uploaded by: Sharif Dendy
Position: INFO

Bill for renewable energy

Testimony on Maryland SENATE Bill SB0590:
Constitutional Amendment - Environmental Rights
TO: Senator Young, Chair, and members of the Judicial Proceedings Committee
FROM: Sharif, Progressive Maryland Environmental Justice Campaign
DATE: February 27th, 2023
POSITION: SUPPORT

Thank you for the opportunity to offer my testimony for SB0590. I have recently joined the Progressive Maryland organization in hopes of putting my best foot forward in helping to reduce the environmental injustices that have plagued my Cherryhill neighborhood, as well as other disinvested communities. Decades of industrial waste have been thrown into our environments causing our areas to become brownfields versus areas being reconstructed and or built up, given proper resources other communities don't get a chance to receive. Mind you this is only one of the many historical or systematic injustices that have served against communities such as ours. I strongly urge you to reconsider this bill creating a better environmental future for generations to come.

I am 29 years old and have lived in Cherryhill since I was 5. Even though I wasn't fully aware of the damage that the incinerator caused I knew of what it wasn't doing indirectly without a doubt. I live on a block that's full of homeowners and families that have been in the area for 2 or more generations. It is safe to say most of the people that live on my block are homeowners. Over time I have seen many of my older relatives or family friends on Hillview Rd pass from causes such as cancer, respiratory diseases, and other issues. These are the symptoms that I'm aware of from those that were immediately around myself and my family. I myself have type 1 diabetes since diagnosed at the age of 6. After being able to conduct my own research about the systemic and historical events in Baltimore that have amplified and created not just metaphysical but physical boundaries lines and areas of disinfected communities for our people.

Theories such as the "Butterfly" effect or "L" theory excuse me if I incorrectly named them but show how communities of color are being greatly affected due to displacement and disinvestment over time. Those affected have experienced decades of mental and physical disparity in their neighborhoods. I only bring this to your attention because all these things have played a role in the shaping of our communities as time has progressed. Being able to do community service for" Canoe & Scoop" at the Waterview boat

house was a great experience but it also puts a lot into perspective in our own community. I remember during this time the water wasn't deep in certain areas and you literally could see the grime, sludge, and chemicals that were in the water as we picked up/towed it was very alarming.

I support this environmental cause because it isn't just for the ones present but also for our next generation. Our future generations will have to deal with the health circumstances that plague some of us to this day. If we can come together to create changes such as this one step by step, we will be able to rebuild and uplift our disinvested communities all around Baltimore and create a better future for the generations to come. We shouldn't have to argue or debate over the importance of having clean water, breathing fresh air without chemical pollutants, or dealing with the severe health cases due to the issues of our demographic location. We all as people deserve more from one another and I genuinely hope you support this bill to end the incinerator.

Respectfully,
Sharif, Member
Environmental Justice Campaign