SB549 – Renewable Energy Portfolio Standard-Therma Uploaded by: Matthews, Dakota

Position: FAV



John Hartline, Chairman

Testimony in Support of Senate Bill 549– Renewable Energy Portfolio Standard - Thermal Biomass Systems Finance Committee February 23, 2021

The Rural Maryland Council supports SB 549 – Renewable Energy Portfolio Standard – Thermal Biomass Systems. The purpose of this bill is to authorize thermal biomass systems, for purposes of the State's Renewable Energy Portfolio Standard (RPS), to use food waste, qualifying biomass, or animal manure as a source of fuel, regardless of the relative mix of fuel sources.

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 with the majority ending up being disposed in landfills or incinerated. Including food waste as a renewable fuel source can provide significant contribution 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 Rural Maryland Council requests your favorable support of Senate Bill 549 – Renewable Energy Portfolio Standard – Thermal Biomass Systems.

The Rural Maryland Council (RMC) is an independent state agency governed by a nonpartisan, 40-member board that consists of inclusive representation from the federal, state, regional, county, and municipal governments, as well as the for-profit and nonprofit sectors. We bring together federal, state, county and municipal government officials as well as representatives of the for-profit and nonprofit sectors to identify challenges unique to rural communities and to craft public policy, programmatic or regulatory solutions.

SB0549_DNR_SUP FIN 2-23-2021-2.pdf Uploaded by: McKitrick, James

Position: FAV



February 23, 2021

The Honorable Delores Kelley Chair, Finance Committee 3 East, Miller Senate Office Building Annapolis, MD 21401

The Honorable Brian Feldman Vice Chair, Finance Committee 3 East, Miller Senate Office Building Annapolis, MD 21401

Re: Letter of Support - Senate Bill 549 - Renewable Energy Portfolio Standard -Thermal Biomass Systems

Dear Chair, Vice Chair, and Committee Members,

The Maryland Department of Natural Resources supports Senate Bill 549. This bill clarifies that certain forms of wood, food waste and animal manure are individually eligible as authorized fuels for thermal biomass systems, regardless of the relative mix of those fuel sources. Other eligibility requirements related to thermal biomass systems and their fuel components are unchanged.

Woody biomass is a preferable choice for renewable thermal energy because it is an abundant, inexpensive, price stable, clean, sustainable, and locally-procured and -purchased low-cost energy source that is an economic alternative to high-cost and high-emission fossil fuels. Neighboring states, the European Union, and many Pacific nations have incorporated wood-for-thermal into their energy portfolios with great success by keeping energy prices low and stable while accelerating reductions of greenhouse gas emissions. Recent U.S. Forest Service analyses demonstrate conclusively that wood thermal projects yield cost-effective greenhouse gas abatements. This is unlike the burning of other fuels due to the fact that wood and the forests that generate wood have a closed-looped cycle of carbon uptake, storage and release that increases carbon sequestration with certain practices such as forest management harvest.

The current Renewable Portfolio Standard statute authorizes the generation of Thermal Renewable Energy Credits (Thermal RECs, or TRECs) that, when accounting for their modest megawatt-hour cogeneration, can be converted to Tier I Renewable Energy Credits. Only the thermal energy verified through measurement to be usefully utilized within state borders qualifies for TREC issuance, therefore ensuring that Maryland ratepayers are investing only in in-State thermal projects. Most important of all, however, the TREC market is only a footnote in the State's overall RPS compliance, meaning no other Tier I sources are impacted by the much smaller TRECs. The result for other eligible TREC sources like geothermal and thermal solar is meaningful incentives for adoption without a cost to Maryland's overall electricity goals.

Current law only allows woody biomass to be an eligible thermal source only if it is less than 50 percent of an animal manure system. No such system is or has been economically viable in

smaller scale thermal systems needed for typical facilities in Maryland. With the advent of combined-heat-and-power (CHP) systems in Maryland and across the nation, however, wood energy can be readily used in thousands of installations domestically and globally in systems properly sized for schools, hospitals, hotels, industrial centers, office parks and other facilities of similar scale.

SB 549 would allow facilities to choose the organic energy source that best suits their specific situation, and many will take advantage of the overabundance of wood to apply it as useful thermal energy with lower costs and better emission profiles than fossil fuels. By doing so they will create markets for wood residues, benefiting family woodland owners and small businesses. The department estimates 500,000 tons of wood residues are annually produced in Maryland, and not utilized from routine activities such as manufacturing, roadside and utility tree maintenance and timber harvest. SB 549 would enable the conversion of these stranded production costs into new revenue, eliminate disposal issues, and create and preserve jobs.

In 2017, Maryland forests provided a carbon sink equivalent to 15 percent greenhouse gas emissions and could attenuate much more if markets for low-quality, low-value wood existed. Wood usage data of modern systems that would meet Maryland's air quality regulations implies we could repurpose the unused wood already available to renewably heat 80 schools and upgrade 10 hospitals to CHP systems. The total TRECs eligible for issuance from these conversions is estimated at just 1 million TRECs, or less than 0.05 percent of the total volume of RECs issued. The cash value of the TRECs to the individual facility would significantly improve the financial profile of the investment and therefore increase the number of wood thermal systems deployed.

Turning to the in-state benefits of authoring TRECs for exclusively woody biomass systems, an estimated 78 percent of every dollar spent on heating oil leaves the state. An obvious fiscal consequence is that money is not circulating in the local economies generating commerce, and not creating or supporting jobs. There are two primary effects of wood energy as an alternative with very strong positive economic effects: value-added from local resources and avoided costs that spur local growth. In terms of value-added from local resources, every 100,000 tons of wood residues used for energy creates 40 jobs. By using wood residues as a viable alternative, the export of wealth from the economy is stopped. Switching out just 20 percent of commercial and industrial fuel consumption from oil to wood would inject \$7 million annually into local economies, simultaneously preventing the export of \$14 million from our economy. As for avoided costs, wood fuels are significantly less expensive than all fossil fuels. For example, oil would need to cost less than \$0.51 per gallon to have the same dollar-per-MBtu value as wood chips at \$40 per ton.

For the above reasons, the department respectfully requests the committee to grant SB 549 a favorable report.

Respectfully submitted,

James W. McKitrick Director, Legislative and Constituent Services

BTEC Letter of Support for SB549 Final.pdf Uploaded by: Wilson, Daniel

Position: FAV



RE: FAVORABLE - Senate Bill 549 - Renewable Energy Portfolio Standard - Thermal Biomass Systems

Dear Chair, Vice Chair, and Members of the Committee,

As a business owner in the engineering, environmental permitting and carbon accounting field as well as the current Chairman of the Biomass Thermal Energy Council (BTEC), I respectfully ask for your FAVORABLE consideration of Senate Bill 549 (Renewable Energy Portfolio Standard - Thermal Biomass Systems).

BTEC supports the clean and efficient use of wood residues for heating to replace fossil fuels and enhance local economies. Your support of SB 549 ensures Maryland is able to meet its climate goals, drive local economies by keeping dollars spent on energy in-state, and help ensure healthy forests.

As you review this bill, BTEC would like to emphasize several points for your consideration:

- The critical importance of markets for low-value residues from forest management, urban tree care, and the forest products industry. If there is not a market for these residues, then they become wastes that end up in a landfill or waste pile where they are converted into harmful methane emissions. With the loss of Maryland's paper mills, there is an immediate and dire need for markets for this material today.
- 2) The use of these materials for thermal energy to directly offset the use of natural gas, propane, or fuel oil for heating is the most efficient use of this by-product of forest management and sustainable forest products manufacturing. This use directly offsets the use of a fossil fuel for energy, substituting this residue material that needs a beneficial use for a fossil fuel, which is from carbon that was sequestered underground.
- 3) Maryland's Greenhouse Gas Reduction Act Plan heavily relies on continued and increased forest management to promote carbon sequestration, and increased production of long-life forest products to replace carbon intensive building materials such as steel and concrete. Increases in forest management and generation of sustainable products from local Maryland forests will, by definition, also increase the volume of residues. Ensuring markets for beneficially using these residue materials is critical to the viability of using forests for addressing climate issues.
- 4) Other states, such as Massachusetts, New Hampshire, Maine, and Vermont have all used their RPS as a tool to address greenhouse gas emissions through thermal RECs. These states have had success in reducing greenhouse gas emissions associated with their thermal energy use, and their programs have been seen widely as successful.
- 5) The Maryland Department of the Environment recently overhauled and modernized its air quality permitting rules very specifically on the use of this wood residue for thermal energy. The new rules were the result of the state's multi-year regulatory and rulemaking process, and are a model for the US in addressing systems below 10 mmBtu/hr, given a gap in federal rules. The new rules ensure that beneficially using the by-products of forest management to address carbon emissions from Maryland's current use of fossil fuels for thermal energy can be pursued vigorously in a clean and effective manner.



In summary, continued and increased forest management to ensure healthy forests and meet the Greenhouse Gas Reduction Act Plan is critical to Maryland's economy, environment, and the social wellbeing of its citizens. This forest management results in a significant amount of by-product, low value wood residues, that need a beneficial use to avoid becoming treated as a waste. One of the best uses of forest management residues is replacing the use of fossil fuels for thermal energy.

Modern wood energy systems are highly efficient at converting these residues into thermal energy that directly replaces the use of fossil fuels, and often present opportunities for providing efficient combined heat and power (CHP). These systems are one of the few cost-effective alternatives for decarbonizing the thermal energy use in Maryland's commercial and industrial sectors. Further, the use of this material for thermal energy:

i) Keeps dollars spent on heating directly in the local economy as opposed to exporting that wealth to states that produce gas and oil;

ii) Enables forest management to occur; and

iii) Enables forest businesses to operate.

The highly efficient and clean systems also involve high upfront costs. These are offset directly by energy cost savings over the 25-year system life, but typically result in a 10-year period or longer for payback, making investment difficult for many types of owners.

Maryland has already provided a thermal REC for wood residue systems that use 50% or more manure. Modifying this to allow systems that use 100% forest management by-products would provide some additional energy cost savings to schools, hospitals, universities, farms, industrial facilities, and small businesses that want to reduce their carbon footprint and save on thermal energy costs. Reducing the payback through the thermal REC for these facility owners would allow Maryland to leverage these owner's investments in order to keep forests healthy and meet the Greenhouse Gas Reduction Act Plan goals.

Thank you for the opportunity to testify in support of SB 549, and respectfully request a FAVORABLE committee report.

Respectfully,

Dan Wilson, PE Vice President Wilson Engineering Services, PC

Chairman Biomass Thermal Energy Council

SB0549 (HB0682) - FWA.pdf Uploaded by: Fahrig, Landon

Position: FWA



TO:Members, Senate Finance CommitteeFROM:Mary Beth Tung – Director, MEASUBJECT:SB0549 (HB682) - Renewable Energy Portfolio Standard - Thermal Biomass SystemsDATE:February 23, 2021

MEA POSITION: FWA

MEA generally views the expansion of thermal biomass within the Renewable Portfolio Standard (RPS) favorably. However, the bill excludes the use of biofuel from wastewater treatment plants; a technology that would be primed as an in-state clean resource if not for its exclusion.

MEA notes that the bill as amended would have a small-scale impact overall to RPS. In other words, this will not derail current technology-specific statutory goals. "There are currently no thermal biomass facilities in Maryland."¹ In fact, "contributions from qualifying biomass sourced from agricultural crops, geothermal, other biomass liquid and gas, and solar thermal are too small to [register in comparison to other Tier 1 sources]".²

The use of biomass as feedstock for onsite thermal generation is highly efficient. Pipeline-grade renewable natural gas (RNG) utilized to generate electricity for grid export results in a fuel use efficiency of approximately 33% when line losses from electricity transmission and distribution are taken into account³. This means that nearly two-thirds of the energy content of RNG utilized in this manner is wasted to the environment, versus the much more efficient option of successfully capturing and utilizing this renewable resource to offset onsite thermal demand.

The proposed amendment simply adds organic material from wastewater treatment plants to the list of eligible feedstock for a "thermal biomass system".

For these reasons, MEA urges a favorable report as amended for Senate Bill 549.

AMENDMENT NO. 1

On page 2 in line 5 strike "OR", and in line 6, after the semicolon, insert "OR

<u>(IV)</u> ORGANIC MATERIALS RESULTING FROM WASTEWATER <u>TREATMENT</u>;".

¹ PSC 2019 RPS Report.

² *Id.* at 14

³ <u>https://www.epa.gov/chp/chp-benefits</u>

Support with amendment of SB 549 - Renewable Energ Uploaded by: Ferguson, Colby

Position: FWA



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

February 23, 2021

To: Senate Finance Committee

From: Maryland Farm Bureau, Inc.

<u>Re: Support of SB 549 - Renewable Energy Portfolio Standard - Thermal Biomass</u> <u>Systems</u>

On behalf of our member families, I submit this written testimony in support with amendment of SB 549, legislation that authorizes thermal biomass systems, for purposes of the State's Renewable Energy Portfolio Standard (RPS), to use food waste, qualifying biomass, or animal manure as a source of fuel, regardless of the relative mix of those fuel sources. Other eligibility requirements related to thermal biomass systems and their fuel components are unchanged. Maryland Farm Bureau supports the clarifying amendments being offered by the Maryland Forests Association to include Silvicultural products and natural wood waste.

MDFB Policy: We support energy generation from all agricultural residues and biproducts to be considered value-added production on a farm. We support initiatives to generate heat & electricity from timber resources.

we support initiatives to generate near & electricity from timber resources.

MARYLAND FARM BUREAU SUPPORTS SB 549 WITH AMENDMENT.

Gal Colly Z

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

MFA Support w Amendments SB549.pdf Uploaded by: Hill, Beth

Position: FWA



SENATE BILL 549 RENEWABLE ENERGY PORTFOLIO STANDARD – THERMAL BIOMASS SYSTEMS (Senator Hershey)

February 23, 2021

SUPPORT WITH AMENDMENTS

The Honorable Delores G. Kelley Honorable Members of the Senate Finance Committee

The Association of Industries (AFI) and the Maryland Forests Association (MFA) – Maryland's two leading voices for the State/s forest community, inclusive of landowners, sawmills, loggers, and primary/secondary manufacturers – support Senate Bill 549 with amendments intended to clarify certain wood-related definitional terms per "qualifying biomass" under Maryland's current RPS law.

The intent of the Act is to clearly help promote thermal biomass energy which, as currently defined in statute, has not influenced a responsive market. AFI and MFA, et al, recognize that without lifting the existing restrictive "primarily"

language – meaning 51% of the fuel mix for thermal biomass systems must be derived from "animal manure, including poultry litter" – there will likely never be a market for thermal biomass systems under Maryland's RPS law.



This issue was before the Western Maryland Task Force. AFI/MFA submitted these same amendments to the Task Force during its 2020 Interim deliberations, *not in specific amendment form, but embodied in the bill's text for ease of viewing*. We have been advised the Task Force would support our suggested amendments if introduced.

AN ACT concerning

Renewable Energy Portfolio Standard – Thermal Biomass Systems

FOR the purpose of authorizing certain biomass systems primarily fueled with qualifying biomass other than animal manure to be eligible for renewable energy credits; altering the definition of "thermal biomass system"; and generally relating to the renewable energy portfolio standard and thermal biomass systems.

BY repealing and reenacting, with amendments,

Article – Public Utilities Section 7-701(a) and (r) and 7-704(i) Annotated Code of Maryland (2020 Replacement Volume and 2019 Supplement)

BY repealing and reenacting, with amendments,

Article – Natural Resources Section 7-701(r) Annotated Code of Maryland (2020 Replacement Volume and 2019 Supplement)

SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND, That the Laws of Maryland read as follows:

Article – Public Utilities

7-701.

(a) In this subtitle the following words have the meanings indicated.

(I) (1) "Qualifying biomass" means a nonhazardous, organic material that is available on a renewable or recurring basis, and is:

(i) <u>Waste material that is segregated from inorganic waste</u> material and is derived from sources including:

- 1. Except for old growth timber, any of the following forest-related resources:
- A. mill residue, except sawdust and wood shavings;
- B. [precommercial soft wood thinning] SILVICULTURAL PRODUCTS DEFINED IN §5–101 OF THE NATURAL RESOURCES ARTICLE ;
- C. [<u>B</u> slash] NATURAL WOOD WASTES AS DEFINED IN REGULATION;

[D. brush; or

E. yard waste]

2. a pallet, crate, or dunnage;

3. agricultural [and silvicultural sources], including tree crops, vineyard materials, grain, legumes, sugar and other crop by-products or residues; or

4. gas produced from the anaerobic decomposition of animal waste or poultry litter; or

(ii) a plant that is cultivated exclusively for purposes of being used at a Tier 1 renewable source or as a Tier 2 renewable source to produce electricity.

(2) "Qualifying biomass" includes biomass listed in paragraph (1) of this subsection that is used for co-firing, subject to § 7-704(d) of this subtitle.

(3) "Qualifying biomass" does not include:

(i) <u>unsegregated solid waste or postconsumer wastepaper; or</u>

(ii) <u>an invasive exotic plant species.</u>

(r) "Thermal biomass system" means a system that:

(1) uses AS FUEL:

- (i) [primarily] animal manure, including poultry litter, and associated bedding to generate thermal energy; [and]
- (ii) [Food waste or] qualifying biomass [for the remainder of the feedstock]; OR
- (iii) FOOD WASTE;

(2) is used in the State; and

(3) complies with all applicable State and federal statutes and regulations, as determined by the appropriate regulatory authority.

7-704.

(i) (1) Energy from a thermal biomass system is eligible for inclusion In meeting the renewable energy portfolio standard.

(2) (i) A person that owns and operates a thermal biomass system that uses anaerobic digestion is eligible to receive a renewable energy credit.

(ii) A person that owns and operates a thermal biomass system that uses a thermochemical process is eligible to receive a renewable

energy credit if the person demonstrates to the Maryland Department of Environment that the operation of the thermal biomass system:

- 1. is not significantly contributing to local or regional air quality impairments; and
- 2. will substantially decrease emissions of oxides of nitrogen beyond that achieved by a direct burn combustion unit through the use of precombustion techniques, or postcombustion techniques.

(3) A person that is eligible to receive a renewable energy credit under paragraph (2) of this subsection shall receive a renewable energy credit equal to the amount of energy, converted from BTU's to kilowatt-hours, that is generated by the thermal biomass system and used on site.

(4) The total amount of energy generated and consumed for a residential, nonresidential, or commercial thermal biomass system shall be measured by an on-site meter that meets the required performance standards established by the Commission.

(5) The Commission shall adopt regulations for the metering, verification, and reporting of the output of thermal biomass systems.

SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect October 1, 2021.

EXPLANATION OF AFI/MFA PROPOSED AMENDMENTS

- (1) Deletes on page 2 "precommercial soft wood thinning" as nonsensical and substitutes "silvicultural products as defined in §5–101 of the Natural Resources Article".
- (2) Adds on page 2 "natural wood wastes" defined in COMAR (aka, 26.04.09.02), thus broadening the types of woody material that can be used to produce thermal biomass energy beyond just "slash" which has no comparable COMAR reference and is mostly an industry term.
- (3) Deletes on page 3 "brush and yard waste" because they are included in the definition of "natural wood wastes".
- (4) Deletes on page 3 "and silvicultural sources" because it's duplicative.

NOTE: (1) §5–101 of the Natural Resources Article defines "Silvicultural product" or "forest product" means any raw material yielded by a forest, including (1) timber; (2) timber products; and (3) any other forest materials, such as lumber, poles, pulpwood, firewood and pine straw; and (2) §5–102 of the Natural Resources Article via the *Sustainable Forestry Act of 2009* states that "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 (RPS); (3 *Healthy Air Act*; and (4) *Maryland Clean Energy Incentive Act of 2006*.

Respectfully submitted,

Beth Hill Maryland Forests Association beth@mdforests.org 410/463-1755 Bill Miles Association of Forest Industries billmilesmd@comcast.net 443/404-7449



Mt Loggers SB 549 Support w Amendments.pdf Uploaded by: Hill, Beth

Position: FWA

MOUNTAIN LOGGERS GROUP, IN 458 OLD MORGANTOWN RD E. FRIENDSVILLE, MD 21531

February 19, 2021

THE HONORABLE DELORES G. KELLEY, CHAIR & DISTINGUISHED COMMITTEE MEMBERS

The Mountain Loggers Group would like to offer our support for Senate Bill 549. However, it is imperative to include the clarifying amendments proposed by the Maryland Forests Association and the Association of Forest Industries that promote the clear inclusion of wood products as "qualifying biomass."

Wood biomass is an important and underrated feature of the logging community. Maryland recently experienced a sizeable loss of industry with the Verso paper mill shutdown. Many smaller operations suffered, which highlighted the necessity of diversity in the market. Including the proposed amendments would not only encourage market diversification but would also allow the industry to further contribute to Maryland's green power initiatives.

Thank you for your consideration.

Respectfully,

Danny Sines President, Mountain Loggers Group

Legislation in Support with Amendments for SB 549. Uploaded by: miles, william

Position: FWA



SENATE BILL 549 RENEWABLE ENERGY PORTFOLIO STANDARD – THERMAL BIOMASS SYSTEMS (Senator Hershey)

February 23, 2021

SUPPORT WITH AMENDMENTS

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The Association of Industries (AFI) and the Maryland Forests Association (MFA) – Maryland's two leading voices for the State/s forest community, inclusive of landowners, sawmills, loggers, and primary/secondary manufacturers – support Senate Bill 549 with amendments intended to clarify certain wood-related definitional terms per "qualifying biomass" under Maryland's current RPS law.

The intent of the Act is to clearly help promote thermal biomass energy which, as currently defined in statute, has not influenced a responsive market. AFI and MFA, et al, recognize that without lifting the existing restrictive "primarily"

language – meaning 51% of the fuel mix for thermal biomass systems must be derived from "animal manure, including poultry litter" – there will likely never be a market for thermal biomass systems under Maryland's RPS law.



This issue was before the Western Maryland Task Force. AFI/MFA submitted these same amendments to the Task Force during its 2020 Interim deliberations, *not in specific amendment form, but embodied in the bill's text for ease of viewing.* We have been advised the Task Force would support our suggested amendments if introduced.

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3. agricultural [and silvicultural sources], including tree crops, vineyard materials, grain, legumes, sugar and other crop by-products or residues; or

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- (iii) FOOD WASTE;
- (2) is used in the State; and
- (3) complies with all applicable State and federal statutes and regulations, as determined by the appropriate regulatory authority.

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energy credit if the person demonstrates to the Maryland Department of Environment that the operation of the thermal biomass system:

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- 2. will substantially decrease emissions of oxides of nitrogen beyond that achieved by a direct burn combustion unit through the use of precombustion techniques, or postcombustion techniques.

(3) A person that is eligible to receive a renewable energy credit under paragraph (2) of this subsection shall receive a renewable energy credit equal to the amount of energy, converted from BTU's to kilowatt-hours, that is generated by the thermal biomass system and used on site.

(4) The total amount of energy generated and consumed for a residential, nonresidential, or commercial thermal biomass system shall be measured by an on-site meter that meets the required performance standards established by the Commission.

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- (4) Deletes on page 3 "and silvicultural sources" because it's duplicative.

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Respectfully submitted,

Beth Hill Maryland Forests Association beth@mdforests.org 410/463-1755 Bill Miles Association of Forest Industries billmilesmd@comcast.net 443/404-7449



SB 549_CBF_OPPOSE_DougMyers.pdf Uploaded by: Myers, Doug

Position: UNF



Environmental Protection and Restoration Environmental Education

Senate Bill 549

Renewable Energy Portfolio Standard - Thermal Biomass systems

Date:	February 23, 2021	Position:	OPPOSE
To:	Senate Finance Committee	From:	Doug Myers
			Maryland Senior Scientist

Chesapeake Bay Foundation (CBF) **OPPOSES** SB 549 which would allow the direct incineration of animal manure and food waste as qualifying biomass sources of energy in the Renewable Energy Portfolio Standard (RPS).

This bill circumvents Maryland's progress towards alternative uses of animal manure and food waste

Composting and biogas digestion allows extracting useful biological energy from the breakdown of these materials. These age-old and emerging technologies extract energy from the biomass as heat, or fuel generators that produce electricity. The processes concentrate nutrients held within that biomass, reduce their weight for efficient shipping, and allow for their safe use, in certain quantities and under certain parameters, as agricultural and residential fertilizers.

CBF understands the need to better manage animal manure, including poultry manure and bedding, and food waste. Development of alternative uses for these waste products continues through the work of the Phosphorus Management Tool Transition Advisory Committee. The State is currently working to manage phosphorus pollution from farms with a history of overapplication of fertilizer. The Phosphorus Management Tool and manure transport program are efforts to this end.¹

Incineration of biomass for heat production has negative implications for the Chesapeake Bay

Directly incinerating any biomass creates significant air emissions of carbon dioxide and nitrogen oxides. These emissions contribute to greenhouse gases and the deposition of nitrogen oxides to the Bay during rainfall events. Several pilot-scale manure incineration facilities have failed to demonstrate efficient heat production without significant air pollution.

The diversion of these feedstocks to a cheaper, more polluting process undercuts the business model for developing composting and anaerobic digestion facilities that the State is pursuing. It would undermine truly renewable energy sources like wind, solar and geothermal in the renewable energy portfolio.

CBF urges the Committee's UNFAVORABLE report on SB 549.

For more information, please contact Robin Jessica Clark, Maryland Staff Attorney at <u>rclark@cbf.org</u> and 443.995.8753.

Maryland Office • Philip Merrill Environmental Center • 6 Herndon Avenue • Annapolis • Maryland • 21403 Phone (410) 268-8816 • Fax (410) 280-3513

The Chesapeake Bay Foundation (CBF) is a non-profit environmental education and advocacy organization dedicated to the restoration and protection of the Chesapeake Bay. With over 300,000 members and e-subscribers, including over 109,000 in Maryland alone, CBF works to educate the public and to protect the interest of the Chesapeake and its resources.

¹ Maryland Department of Agriculture, <u>The Agriculture Phosphorus Initiative</u>, last visited 2.16.2021.

SB549 - Renewable Energy Portfolio Standard-Therma Uploaded by: Tulkin, Josh

Position: UNF



Committee:FinanceTestimony on:SB549 "Renewable Energy Portfolio Standard – Thermal Biomass
Systems"Position:OpposeHearing Date:February 23, 2021

The Maryland Sierra Club requests an unfavorable report on SB549, which seeks to amend the state's Renewable Portfolio Standard (RPS) in a manner which is inconsistent with the efforts of this Committee and the Senate as a whole to better focus the RPS on supporting the development of new, clean renewable energy sources.

Specifically, this bill would alter the manner in which thermal biomass systems may qualify for renewable energy credits (RECs). Currently, RECs are allowed for thermal systems which primarily produce heat and energy from the disposal of poultry litter or other animal manure. The bill would eliminate this focus requirement, and allow RECs for thermal systems which instead primarily or entirely rely on other biomass, including the burning of trees.

The RPS is among our state's most important programs for substantially reducing our emissions of climate-disrupting greenhouse gases. The RPS' increased importance under the 2019 Clean Energy Jobs Act means it should be focused on incentivizing new, renewable energy facilities which will support Maryland's efforts to mitigate climate change.

To that end, the Senate recently passed this session – with the support of this Committee – SB65 to remove black liquor from the RPS. Burning black liquor emits climate-disrupting CO_2 and other pollutants, including sulfur dioxide, arsenic, and lead which cause serious damage to our residents' health. Removing black liquor from the RPS will lead to greater RPS support for clean renewable energy.

Expanding RPS incentives for burning trees, as this bill would do, would move the RPS in the other direction, i.e., the wrong direction. Burning trees emits a significant amount of CO_2 and other pollutants. Though the natural life-cycle of trees includes CO_2 emissions when trees die and decompose, this occurs slowly in a decades-long process that does not harm the climate or emit pollutants in the same manner or to the same degree.

For these reasons, we request an unfavorable report on SB549.

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Founded in 1892, the Sierra Club is America's oldest and largest grassroots environmental organization. The Maryland Chapter has over 75,000 members and supporters, and the Sierra Club nationwide has over 800,000 members and nearly four million supporters.