

CCAN Action Fund_FAV_SB168

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Position: FAV

Testimony in Support of Senate Bill 168
Electricity - Renewable Energy Portfolio Standard - Qualifying Biomass
Senate Finance Committee | February 4, 2020

Steven Hershkowitz, CCAN Action Fund Maryland Director

The Chesapeake Climate Action Network (CCAN) Action Fund supports Senate Bill 168, legislation to remove black liquor from the Renewable Energy Portfolio Standard (RPS). We thank Chair Delores Kelley for sponsoring this legislation to further ensure resources dedicated to clean energy truly go to renewables like wind and solar.

CCAN Action Fund and our grassroots network throughout Maryland is dedicated to achieving a net zero greenhouse gas emission economy by 2045, as is recommended by the United Nations Intergovernmental Panel on Climate Change (IPCC). To create this future, we must invest in frontline and historically disadvantaged communities, protect workers, create good-paying union jobs, and result in greater wealth and income equality.

According to the Maryland Department of Environment (MDE), greenhouse gas emissions from the electricity sector make up about 30% of the state's climate pollution, making it the second-largest climate change contributor in the state behind transportation. The General Assembly took a huge step towards reducing these emissions when it passed the Clean Energy Jobs Act last year, requiring 50% clean electricity by 2030.

Unfortunately, the definition of "clean" in state law still includes some forms of electricity generation that emit greenhouse gases. Black liquor, in particular, has most recently made up 15% of Maryland's RPS. More than 90% of that black liquor electricity generation has come from out-of-state, subsidizing non-Maryland polluters. With the closing of Luke Mill, that will become 100% if this bill is not enacted.

Instead of subsidizing out-of-state pollution, we can free up Renewable Energy Credits for in-state solar and wind jobs. This is especially important because reducing emissions in the transportation and building sectors is dependent on electrification of vehicles and building infrastructure. This legislation is another key step in the path to 100% clean electricity.

CCAN Action Fund urges the Committee to give SB 168 a favorable report.

CONTACT

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CBF_FAV_SB168

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Position: FAV



CHESAPEAKE BAY FOUNDATION

*Environmental Protection and Restoration
Environmental Education*

Senate Bill 168

Electricity – Renewable Energy Portfolio Standard

DATE: FEBRUARY 4, 2020

POSITION: SUPPORT

POSITION

The Chesapeake Bay Foundation urges a favorable report on SB 168 from the Senate Finance Committee. This legislation removes “mill residue” also known as black liquor from the list of qualifying biomass in the State of Maryland’s Renewable Energy Portfolio Standard.

COMMENTS

Black liquor is a waste product from pulp and paper mills that contain hundreds of chemical constituents that when burned for energy emit large amounts of carbon dioxide, methane and nitrous oxides, all of which are potent greenhouse gases.¹ Greenhouse gas emissions threaten the Chesapeake Bay through climate change and its effects.

Warmer waters exacerbate the Bay’s dead zones, stressing fish including the Bay’s iconic striped bass. The EPA predicts that a three-degree overall air temperature increase could increase the heat-related human death toll. Storm surges combined with higher sea levels and increasingly erratic storm activity may flood thousands of low-lying areas in Maryland, many of which are occupied by economically disadvantaged residents.

SB 168 removes black liquor as a qualifying source recognizing the fact that even though the fuel source is renewable, it is not environmentally clean. While Maryland’s last pulping facility has now closed, the State’s Renewable Portfolio Standard currently allows Maryland to purchase renewable energy credits from facilities in any state within the Pennsylvania-New Jersey-Maryland Interconnection (PJM) grid. By ending the State’s ability to purchase credits from black liquor, SB 168 removes the subsidy for black liquor emissions throughout the Chesapeake Bay watershed.

CONCLUSION

For these reasons, the Chesapeake Bay Foundation urges a favorable report on SB 168. If you have any questions, feel free to contact Doug Myers, Maryland Senior Scientist at 443.482.2168 or dmyers@cbf.org.

¹ Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from the Pulp and Paper Manufacturing Industry, Office of Air and Radiation, Environmental Protection Agency, October 2010, available at <https://www.epa.gov/sites/production/files/2015-12/documents/pulpandpaper.pdf>

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SenKelley_FAV_SB168

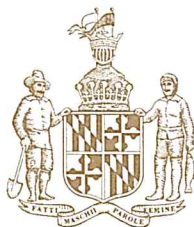
Uploaded by: Senator Kelley, Senator Kelley

Position: FAV

SENATOR DELORES G. KELLEY
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—
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THE SENATE OF MARYLAND
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TESTIMONY OF SENATOR DELORES G. KELLEY

**REGARDING SENATE BILL 168 - ELECTRICITY - RENEWABLE ENERGY PORTFOLIO
STANDARD – QUALIFYING BIOMASS**

BEFORE THE SENATE FINANCE COMMITTEE

ON FEBRUARY 4, 2020

Mr. Vice Chair and Members:

Maryland’s Renewable Portfolio Standard is one of the State’s primary tools for combating climate change and for supporting the development of new, clean, and renewable energy sources. Just last year, this Committee passed an ambitious, much expanded RPS Bill, increasing the State’s commitment to wind, solar and other technologies. However, there is still work to be done, as there are several remaining sources that are either not new or not clean.

Black liquor, a mix of caustic chemicals and wood waste, left over from the manufacture of paper, remains in our portfolio, and releases carbon dioxide, a major greenhouse gas that harms the climate. While the votes were not there in the 2019 Session to remove black liquor from our State's RPS, because of significant concerns of some members regarding the impact on Maryland jobs at Luke Mill, the Mill subsequently closed anyway, and we now have no legitimate reason to retain black liquor in our RPS, as it no longer meets any of Maryland's environmental or economic goals. With passage of Senate Bill 168, which removes black liquor from our RPS.

In a 2018 RPS Compliance Report for the 2017 calendar year, black liquor was the source of 24% of all Tier 1 RPS REC's. While Maryland's Luke Mill supplied only 6.6% of these black liquor REC's, we were also subsidizing black liquor from Pennsylvania, Virginia, Ohio, and Tennessee. These remaining sources of black liquor obviously produce no jobs in Maryland, while impacting public health and the climate by adding harmful pollutants, and smog – creating nitrogen oxides and sulfur dioxide.

Maryland's RPS should support clean energy, preferably with a beneficial impact to Maryland's economy rather than granting recs to out-of-state paper mills. Senate Bill 168 removes black liquor from the RPS, and strengthens our State's commitment to truly cleaner, renewable energy projects.

I, therefore, seek your strong support of Senate Bill 168.

MD Sierra Club_FAV_SB0168

Uploaded by: Tulkin, Josh

Position: FAV



Maryland Chapter

7338 Baltimore Avenue, Suite 102
College Park, MD 20740-3211

Committee: Finance

Testimony on: SB 168 – “Renewable Energy Portfolio Standard - Qualifying Biomass”

Position: Favorable

Hearing Date: February 4, 2020

The Maryland Sierra Club submits this testimony in support of SB168, a bill to promote clean renewable energy by removing black liquor from the Renewable Portfolio Standard (RPS). The Sierra Club has long opposed inclusion of black liquor in the RPS as well as other combustion-based sources, and has supported the prioritization in the RPS of new, clean renewable energy resources like wind and solar.

Black liquor is a tarry, carbon-rich and harmful byproduct of the pulp and paper industry. It emits climate-disrupting CO₂ and other pollutants, including sulfur dioxide, arsenic and lead which cause serious damage to our climate and our residents' health.

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

Several recent developments provide further support for removing black liquor from the RPS:

- Black liquor is declining in importance: In 2007, black it was the largest energy resource in the RPS, accounting for 38% of the retired Tier 1 renewable energy credits (RECs).¹ A decade later, in 2017, black liquor was reduced to a 24% share, with over 90% coming from out of state.²
- In 2019, Maryland's only paper mill closed. However, Maryland remains the only state in the multi-state PJM grid to recognize black liquor as a Tier 1 RPS resource (Pennsylvania includes it as a Tier 2 resource).
- As noted, Maryland enacted the Clean Energy Jobs Act. Also last year, biomass electricity generation stopped growing nationwide.³

Removing black liquor from the RPS would lead to greater support for clean renewable energy. When dirty forms of energy are incentivized, they are treated like solar and wind energy and displace clean sources in the RECs market. Exclusion of black liquor would reduce the pool of RECs in PJM, which could be filled by truly clean, renewable energy.⁴

For all these reasons, we recommend a favorable report on this bill.

Darian Unger, Ph.D., energy lead
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Josh Tulkin, Chapter Director
Josh.Tulkin@MDSierra.org

¹ PSC, Renewable Energy Portfolio Standard Report (2009), <https://www.psc.state.md.us/wp-content/uploads/MD-PSC-Renewable-Energy-Portfolio-Standard-Report-of-2009-with-Data-for-Compliance-Year-2007.pdf>.

²PSC, Renewable Energy Portfolio Standard Report (2018), <https://www.psc.state.md.us/wp-content/uploads/FINAL-Renewable-Energy-Portfolio-Standard-Report-with-data-for-CY-2017.pdf>.

³ Energy Information Administration, “Increases in electricity generation from biomass stop after a decade of growth,” (2019) <https://www.eia.gov/todayinenergy/detail.php?id=39052>

⁴ Maryland Dept. of Natural Resources (2018), “2017 Inventory of Renewable Energy Generators Eligible for the Maryland Renewable Energy Portfolio Standard” <https://dnr.maryland.gov/pprp/Documents/DraftMDRPSInventory-4-30-18-Exeter-Associates.pdf>

Maryland Catholic Conference_FAV_SB168

Uploaded by: Wallerstedt, Anne

Position: FAV



ARCHDIOCESE OF BALTIMORE † ARCHDIOCESE OF WASHINGTON † DIOCESE OF WILMINGTON

February 4, 2020

SB 168

Electricity – Renewable Energy Portfolio Standard – Qualifying Biomass

Senate Finance Committee

Position: Support

The Maryland Catholic Conference (“Conference”) represents the public policy interests of the three Roman Catholic (arch)dioceses serving Maryland: the Archdiocese of Baltimore, the Archdiocese of Washington, and the Diocese of Wilmington.

Senate Bill 168 removes mill residue, “black liquor,” from eligibility for inclusion as a qualifying biomass in the State’s Renewable Energy Portfolio. Maryland is currently the only state in the region that allows black liquor as an eligible Tier 1 resource.

The Conference supports environmental legislation that recognizes the integral ecosystem in which we live. In his encyclical, *On Care for Our Common Home (Laudato Si’)*, Pope Francis states that “our immense technological development has not been accompanied by a development in human responsibility, values and conscience.” While the removal of black liquor as a renewable energy source may seem like a comparatively small step, it is an acknowledgment that the state needs to reconcile this balance.

Laudato Si’, however, is not an endorsement of specific public policy proposals; rather, it seeks to illustrate the importance of protecting our common home and issue guidance as to how to listen to all voices in solving this massive global crisis. Pope Francis explains that “[t]o take up these responsibilities and the costs they entail, politicians will inevitably clash with the mindset of short-term gain and results which dominates present-day economics and politics. But if they are courageous, they will attest to their God-given dignity and leave behind a testimony of selfless responsibility.” Senate Bill 168 aims to address some of the needed reforms to energy consumption policies and standards to be set to sustain and achieve a healthy global ecosystem. We encourage discussion around the components and goals outlined in this legislation and pray they are a catalyst for meaningful ecological policy reform.

The Conference appreciates your consideration and, for these reasons, respectfully requests a favorable report on Senate Bill 168.

Energy Justice Network_FWA_SB168

Uploaded by: Ewall, Mike

Position: FWA



February 4, 2020

Comments before Senate Finance Cmte

FAVORABLE WITH AMENDMENTS

**SB 168: Electricity – Renewable
Energy Portfolio Standard –
Qualifying Biomass**

Mike Ewall, Esq.
Founder & Director
Energy Justice Network
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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 strongly support this bill. The burning of toxic paper mill waste has been taking sucking the air out of the RPS since its inception. This decades-old practice was the only resource even used in the first two years of the Maryland RPS, and from 2004 through 2017, it remained the largest source of credits sold throughout that time. Only in 2018 did wind power catch up.

Maryland is unusual in giving renewable energy credits to filthy paper mills. In the entire PJM grid, nearly 60% of all black liquor credits came from Maryland ratepayers – subsidizing 12 paper mills in 8 states. In addition to the Luke Mill that used to operate in Maryland, we've been feeding money to similar polluters in Virginia, Pennsylvania, Ohio, North Carolina, Tennessee, Michigan, and Wisconsin.

These are no small polluters. In all of these places, the paper mills are one of the top air polluters in their county and state, according to EPA data. When Luke Mill was still operating, they were Maryland's #1 air polluter. According to data reported by the mill to EPA's National Emissions Inventory for 2017 (latest available data), out of 517 industrial air polluters in Maryland, the Luke Mill is responsible for a whopping 20% of the total pounds of health-damaging pollution. They were the #1 source in the state for Sulfur dioxide pollution from Maryland industries, responsible for a staggering 49%, causing respiratory diseases, breathing difficulty, and premature death. They were also the largest source of arsenic, and in EPA's previous emissions inventory (2014), they were #1 in toxic mercury emissions (27% of the total), and #1 in cancer-causing polycyclic aromatic hydrocarbon pollution (83% of the total). And this air pollution is even with the expensive upgrades they crowed about to the Baltimore Sun.

With Luke Mill now closed, all of this Maryland ratepayer money is going out-of-state. When the unions and Luke Mill protested this bill in the past, they made claims that these credits are crucial to keeping their jobs. Last year, we saw that lie in that. Roughly \$1 million/year in renewable energy subsidies wasn't enough to keep them open, anyway.

Black liquor needs to be removed. But that's just one piece of it. We still subsidize these same paper mills with their burning of other types of so-called "biomass," reported under a separate code in the GATS reporting system as WDS, for wood and wood-waste solids. There's nothing clean about burning biomass. It can be as dirty as coal, or dirtier on some pollutants. On global warming, it's 50% worse than coal. About 20% of the credits going to these out-of-state filthy paper mills is not for black liquor, but for other wood waste they also burn. The biomass carbon neutrality argument has been scientifically debunked repeatedly. It is not "carbon neutral," but is one of the leading sources of greenhouse gases. See www.energyjustice.net/biomass/climate for an overview of the science debunking biomass carbon neutrality.

Cube Hydro Partners-_FWA_SB 168

Uploaded by: Kress, William

Position: FWA



Senate Bill 168

Position: FAVORABLE WITH AMENDMENT

**Testimony of Eli Hopson, on behalf of Cube Hydro Partners, LLC
to members of the Senate Finance Committee on**

February 4, 2020

Good afternoon, Chair Kelley, Vice Chair Feldman, and members of the Finance Committee. My name is Eli Hopson, and I am the Vice President of Legal, Regulatory, and Policy at Cube Hydro Partners, which is based in Bethesda. On behalf of Cube Hydro, I want to thank the Committee for the opportunity to provide comments today on SB 168. Cube Hydro supports this bill with amendment.

About Cube Hydro

Cube Hydro is an independent hydropower company that buys, develops and modernizes hydropower facilities in North America. We are committed to responsibly developing hydropower at existing dams using innovative and environmentally sensitive technologies. In 2019 we were purchased by Ontario Power Generation, and we are now merged with another OPG subsidiary, Eagle Creek Renewable Energy. The combined Eagle Creek owns and operates eighty-five hydropower facilities that collectively add 620 megawatts of capacity to the electric grid and produce more than enough to power all the homes in Baltimore. Our facilities also provide ancillary services and other economic and environmental benefits, including recreation. We have strong Maryland ties – Cube was founded in Maryland, and our corporate team of nearly 20 employees is proud to be headquartered in Bethesda.

Hydropower Can Help Address Climate Change

According to the Intergovernmental Panel on Climate Change (IPCC), human activities have caused global temperatures to rise by approximately 1°C (1.8°F) above pre-industrial levels. Without major action, this increase is projected to reach 1.5°C (2.7°F) by mid-century and 2°C (3.6°F) by 2065. Climate change poses a major risk to American lives and could reduce the size of the nation's economy by as much as 10 percent by the end of the century.

Experts agree that the dangers of climate change are real and the window for effectively addressing this challenge is closing. The Paris Agreement set a goal of limiting the global temperature rise this century to under 2°C (3.6°F) and pursue efforts to limit the increase to 1.5°C (2.7°F).¹ According to the IPCC, limiting global warming to 1.5°C (2.7°F) would require “rapid, far reaching and unprecedented” changes.² It means eliminating the use of fossil fuels by 2050 and increasing the use of all renewable energy resources – biomass, hydropower, solar, wind, and geothermal. Hydropower is an essential component of the effort to address climate change.

Benefits of SB 168

SB 168 contemplates removing certain greenhouse gas emitting renewables, black liquor facilities, from the Maryland Renewable Portfolio Standard (RPS). We support allowing the replacement of those high-emitting, low cost RECs with zero-emissions RECs from hydropower. By encouraging zero-emitting renewable resources, including hydropower, this bill can reduce costs to consumers while reducing the emissions of Maryland’s electric supply. According to the Maryland Power Plant Research Program, black liquor currently provides double the RECs that hydropower does for Tier1. By removing the black liquor eligibility, but increasing the number of hydropower facilities that can participate in Tier 1, the legislature can support the further development, and continued operation of zero-emitting hydro facilities. Unfortunately the current RPS puts existing hydropower facilities larger than the arbitrary 30 MW cap at a disadvantage, even though these facilities are providing an important supply of baseload, and in some cases, dispatchable renewable energy necessary to meet the bill’s expanded renewable energy goals. As Maryland considers improving the global warming footprint of its RPS, the legislature should also consider including additional hydropower to contribute carbon-free electrons and support the electric grid as more wind and solar resources come online.

Eagle Creek applauds the Maryland General Assembly for its leadership on the RPS and more broadly on its actions to address climate change. States across the nation are stepping up to reduce their dependence on carbon-emitting fossil fuels and accelerate the shift to carbon-free, renewable resources.

¹ United Nations Framework Convention on Climate Change, “Paris Agreement”: <https://unfccc.int/resource/bigpicture/#content-the-paris-agreemen>

² Intergovernmental Panel on Climate Change, “Global Warming of 1.5°C”: <https://www.ipcc.ch/sr15/>

New York and Maine recently joined the number of states with 100% RPSs, and Virginia and New Jersey have 100% goals set by their governors.

Hydropower is a critical renewable energy resource, and we believe it should be encouraged and valued for the role it plays in combating climate change. Allowing more hydropower to participate in the Maryland RPS would create benefits for Maryland's businesses and residential customers and help the state more efficiently and cost-effectively transition to a 100% renewable energy future.

Eagle Creek supports SB 168 with amendment and the expanded inclusion of hydropower in the Maryland Renewable Portfolio Standard. I urge the Committee to consider it favorably and would be happy to respond to any questions.

Proposed Amendment

Tier 1

On Page 3, line 8 after "than" strike "30" and insert "60"

(8) a small hydroelectric power plant of less than [30] **60** megawatts in capacity that is licensed or exempt from licensing by the Federal Energy Regulatory Commission;

On Page 3, Line 23, after "(5)" insert "(8)"

7-704.17

(2) (i) Energy from a Tier 1 renewable source under § 7-701(r)(1), (5), **(8)** (9), (10), or of this subtitle is eligible for inclusion in meeting the renewable energy portfolio standard only if the source is connected with the electric distribution grid serving Maryland.

Tier 2

On page 4, line 4, after “standard” strike “through 2020”

(4) from a Tier 2 renewable source under § 7–701(s) of this subtitle is eligible for inclusion in meeting the renewable energy portfolio standard ~~through 2020~~ if it is generated at a system or facility that existed and was operational as of January 1, 2004, even if the facility or system was not capable of generating electricity on that date.”.

Eli Hopson

Vice President, Legal, Regulatory and Policy

Brookfield_FWA_SB168

Uploaded by: Lininger, Brett

Position: FWA

Senate Bill 168**Position: SUPPORT WITH AMENDMENT****Testimony of Christopher Ercoli, on behalf of Brookfield Renewable Partners L.P. to members of Senate Finance on SB168 *Electricity – Renewable Energy Portfolio Standard – Tier I Eligibility***

Brookfield Renewable thanks Chairwoman Kelley and members of the Committee for the opportunity to provide comments on SB168. Brookfield supports SB168 and requests an amendment to extend Maryland's existing Tier 2 RPS program which is currently set to expire at the end of this year. This extension allows clean, reliable, and renewable baseload hydropower resources to continue contributing to Maryland's renewable energy and carbon reduction goals.

Brookfield Renewable Partners L.P. ("Brookfield Renewable") has a substantial presence in PJM, including almost 875 MW of carbon-free hydropower resources in Maryland, Pennsylvania and West Virginia, 377 MW of hydropower in North Carolina and Tennessee that also supplies the PJM market, and 120 MW of solar development projects in Virginia. In Maryland, Brookfield Renewable's 20 MW Deep Creek hydropower facility provides renewable, carbon-free power, local tax revenues, recreational opportunities, and both direct and indirect jobs in Garrett County. Brookfield Renewable is affiliated with TerraForm Power, Inc., which owns and operates approximately 280 MW of wind and distributed solar resources in PJM, including approximately 15 MW of distributed solar in Maryland.

The extension of Tier 2 is important for the following reasons:

- First, Tier 2 hydro is the most cost-effective way of meeting Maryland's clean energy targets. In 2018, the Tier 2 obligation represented almost 15% of the total RPS requirement but only 1% of the \$85M in total compliance costs. Further, the fiscal note attached last year to SB350, which was amended to extend Tier 2 until the end of 2020, affirmed there would be negligible effect on Maryland's ratepayers.
- Second, without an extension these resources will unjustly lose the ability to sell their electricity as 'renewable' to Maryland customers. Hydropower electricity is an important low-cost source of clean, non-emitting electricity for Maryland. Without action, these resources will be forced to export their environmental attributes to neighboring states and Maryland will lose the ability to count these cost-effective resources towards its renewable

energy and carbon reduction goals in the future. This will increase costs for Maryland ratepayers.

- Third, As Maryland and the Mid-Atlantic region increasingly interconnect intermittent renewable resources, hydropower provides the flexibility and resiliency needed by grid operators to help meet fluctuating real-time electricity demand and balance the intermittency of wind and solar resources.
- Lastly, while many hydropower assets are existing, long-life resources, they require substantial capital expenditures over their lifetime to maintain and periodically undergo relicensing by the Federal Energy Regulatory Commission (FERC). Typically spanning 5-7 years and requiring millions in additional capital investments, FERC relicensing brings a facility up to the highest and best environmental standards of the day, allowing them to effectively operate as new resources. These ongoing reinvestments in renewable, clean, and carbon-free electricity is critical to Maryland's carbon reduction goals and should be reflected in the state's renewable portfolio standard.

In short, SB168 will ensure that hydropower continues to provide Maryland with all their energy, environmental, and grid reliability benefits. Brookfield Renewable thanks the Committee again for the opportunity to speak today and would be happy to respond to any questions.

**Amendment
Senate Bill 168**

Rationale: To remove the 2020 sunset on Tier 2 for hydroelectric as a renewable resource in the RPS.

By amending 7-703.

(a) (1) (i) The Commission shall implement a renewable energy portfolio standard that, except as provided under paragraphs (2) and (3) of this subsection, applies to all retail electricity sales in the State by electricity suppliers.

(b) Except as provided in subsection (e) of this section, the renewable energy portfolio standard shall be as follows:

(1) In 2006, 1% from Tier 1 renewable sources and 2.5% from Tier 2 renewable sources;

(15) in 2020:

(i) 28% from Tier 1 renewable sources, including:

1. at least 6% derived from solar energy; and

2. an amount set by the Commission under § 7-704.2(a) of this subtitle, not to exceed 2.5%, derived from offshore wind energy; and

(ii) 2.5% from Tier 2 renewable sources;

(16) in 2021,

(I) 30.8% from Tier 1 renewable sources, including:

[i]1. at least 7.5% derived from solar energy; and

[ii]2. an amount set by the Commission under § 7-704.2(a) of this subtitle derived from offshore wind energy; and

(II) 2.5% FROM TIER 2 RENEWABLE SOURCES;

(17) in 2022,

(I) 30.8% from Tier 1 renewable sources, including:

[i]1. at least 7.5% derived from solar energy; and

[ii]2. an amount set by the Commission under § 7-704.2(a) of this subtitle derived from offshore wind energy; and

(II) 2.5% FROM TIER 2 RENEWABLE SOURCES;

(18) in 2023,

(I) 30.8% from Tier 1 renewable sources, including:

- [i]1.** at least 7.5% derived from solar energy; and
- [ii]2.** an amount set by the Commission under § 7-704.2(a) of this subtitle derived from offshore wind energy; and

(II) 2.5% FROM TIER 2 RENEWABLE SOURCES;

(19) in 2024,

(I) 30.8% from Tier 1 renewable sources, including:

- [i]1.** at least 7.5% derived from solar energy; and
- [ii]2.** an amount set by the Commission under § 7-704.2(a) of this subtitle derived from offshore wind energy; and

(II) 2.5% FROM TIER 2 RENEWABLE SOURCES;

(20) in 2025,

(I) 30.8% from Tier 1 renewable sources, including:

- [i]1.** at least 7.5% derived from solar energy; and
- [ii]2.** an amount set by the Commission under § 7-704.2(a) of this subtitle derived from offshore wind energy; and

(II) 2.5% FROM TIER 2 RENEWABLE SOURCES;

(21) in 2026,

(I) 30.8% from Tier 1 renewable sources, including:

- [i]1.** at least 7.5% derived from solar energy; and
- [ii]2.** an amount set by the Commission under § 7-704.2(a) of this subtitle derived from offshore wind energy; and

(II) 2.5% FROM TIER 2 RENEWABLE SOURCES;

(22) in 2027,

(I) 30.8% from Tier 1 renewable sources, including:

- [i]1.** at least 7.5% derived from solar energy; and
- [ii]2.** an amount set by the Commission under § 7-704.2(a) of this subtitle derived from offshore wind energy; and

(II) 2.5% FROM TIER 2 RENEWABLE SOURCES;

(23) in 2028,

(I) 30.8% from Tier 1 renewable sources, including:

- [i]1.** at least 7.5% derived from solar energy; and

[ii]2. an amount set by the Commission under § 7-704.2(a) of this subtitle derived from offshore wind energy; and

(II) 2.5% FROM TIER 2 RENEWABLE SOURCES;

(24) in 2029,

(I) 30.8% from Tier 1 renewable sources, including:

[i]1. at least 7.5% derived from solar energy; and

[ii]2. an amount set by the Commission under § 7-704.2(a) of this subtitle derived from offshore wind energy; and

(II) 2.5% FROM TIER 2 RENEWABLE SOURCES;

(25) in 2030 and later,

(I) 30.8% from Tier 1 renewable sources, including:

[i]1. at least 7.5% derived from solar energy; and

[ii]2. an amount set by the Commission under § 7-704.2(a) of this subtitle derived from offshore wind energy; and

(II) 2.5% FROM TIER 2 RENEWABLE SOURCES.

MDDCAFLCIO_UNF_SB168

Uploaded by: Cook, Chuck

Position: UNF



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Donna S. Edwards

Secretary-Treasurer
Gerald W. Jackson

**SB 168 - Electricity - Renewable Energy Portfolio Standard - Qualifying Biomass
Senate Finance Committee
February 4, 2020**

OPPOSE

**Donna S. Edwards
President
Maryland State and DC AFL-CIO**

Madam Chair and members of the Committee, thank you for the opportunity to submit testimony in opposition to SB 168 - Electricity - Renewable Energy Portfolio Standard - Qualifying Biomass. My name is Donna S. Edwards and I am the President of the Maryland State and District of Columbia AFL-CIO. On behalf of the 340,000 union members, I offer the following comments.

The closure of the paper mill in Luke has already had a devastating effect on the community in Allegany County. Over 600 directly employed workers were immediately unemployed, having to hunt down new employment that offers far lower wages and benefits, and requires hours of travel away from the community. Hundreds of secondary jobs in maintenance and transportation were eliminated, and tertiary jobs in providing goods and services to the workers and their families are struggling to stay open. The mill sustained the community and the community sustained the mill.

All hope is not lost. The company that owns the mill, Verso, is currently looking for a bidder on the property. A skeleton crew of 15 workers maintains the mill in good working order, to be able to get it up and running should a buyer purchase it and again start producing paper. Major improvements are being made to entice potential employers. SB 168 would make the plant completely unviable as a plant, thus rendering its value to any paper manufacturer null and void. This bill would be the final nail in the coffin for the plant, the workers, their families, and the town of Luke.

Our energy policies should reflect a balanced approach. The need to address Climate Change is very real, and we need to do so in a way that retains Maryland jobs and grows our economy. Renewable energy policies are important for Maryland's future, and for Western Maryland and the Eastern Shore, that means biomass should remain a part of the state's programs for tradable renewable energy credits. Maryland's paper mills help to provide Maryland rate payers with the lowest cost renewable energy that displaces fossil fuels in our state. Eliminating biomass as qualifying sources will take an important tool out of the state's tool box in our shared effort to recognize the economic, environmental, fuel diversity, and security benefits of renewable energy sources.

We ask for an unfavorable report on SB 168.

SMARTTD_UNFAV_SB168

Uploaded by: Kasecamp, Larry

Position: UNF

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Legislative Director

VACANT
Assistant Director

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February 4, 2020

REPRESENTATIVES

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KENZELL CRAWFORD

BALTIMORE
Local 610
JOHNNY WALKER

Local 1949
CORA WEEMS

The Honorable Delores Kelley and
Members of the Senate Finance Committee

RE: SB 168

As State Legislative Director for the Transportation Division of the International Association of Sheet Metal, Air, Rail and Transportation Worker's I am urging your committee to **oppose SB-168**, "Electricity - Renewable Energy Portfolio Standard - Qualifying Biomass."

Our organization represents the railroad workers who were employed by CSX Transportation and depended on the jobs provided by the Luke Paper Mill. CSX provided the rail services to the Mill, such as; bringing in the products used in the paper making process, providing the rail yard switching services, and transporting and delivering the finished products to their customers.

The majority of those members reside in the Western Maryland counties, which are economically depressed areas of the state with low average wages and high unemployment. And over the years, this area of the state has been hit especially hard by the loss of manufacturing in this country.

The Luke Paper Mill was one of the top employers in Allegany County considering the number of employees and average wages paid. When you take this into account, plus the indirect jobs associated with the Luke Mill, it probably had the biggest economic impact in Allegany County before it was suddenly closed in 2019.

We believe SB-168 will do more harm to Western Maryland as the loss of the tax credit could be the making or breaking of a deal for any potential buyer of the facility that would be involved in the paper making process.

We understand renewable energy policies are important for Maryland's future, and for western Maryland, but we also believe biomass energy should be a part of the state's programs for tradable renewable energy credits as Tier 1. The Environmental Protection Agency under President Obama declared biomass as carbon neutral.

Manufacturing facilities such as the Luke Paper Mill provide family wage jobs and benefits that cannot be replaced easily, if at all. Moreover, they provide economic benefits for communities through suppliers, service providers, educational resources and tax payments.

The paper making industry is in serious competition from around the world. In places like Europe biomass energy gets generous carbon credits and in places like China they do not have the added environmental regulatory expenses associated with production. If we continue down this path, we may be looking at another manufacturing industry disappearing from the United States.

At a minimum we should delay this policy change to see if any business actually purchases this facility. If one does, it would be a great benefit to the those that lost their jobs and can be reemployed, to the local businesses and to the County itself.

We therefore urge your committee to give an unfavorable report to SB-168.

Sincerely



Lawrence E. Kasecamp
MD State Legislative Director
 Transportation Division

WMDCLC_OPPOSE_SB168

Uploaded by: Koontz, George

Position: UNF



WESTERN MARYLAND CENTRAL LABOR COUNCIL, AFL-CIO

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February 4, 2020

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JODY OLIVER

The Honorable Delores Kelley, Chair and
Members of the Senate Finance Committee

Opposition Testimony to: SB168

Madam Chair and members of the committee, I want to thank you for this opportunity to provide testimony in **opposition to SB168**, titled "*Electricity - Renewable Energy Portfolio Standard - Qualifying Biomass.*"

My name is George Koontz and I am President of the Western Maryland Central Labor Council of the Maryland State & D.C. AFL-CIO. Our jurisdiction is Allegany and Garrett counties in Western Maryland.

Our affiliates members work in all areas of employment and are represented by dozens of different labor organizations. Many of the affiliates had members who were employed by the Verso Paper Mill, which was shuttered in June of 2019. The result was many union members and others losing their employment.

We understand there are other employers in the paper industry looking at the plant for possible purchase. If this bill passes it may diminish the viability of an agreement being made for such a purchase.

This would be a devastating blow to the thousands of unemployed in the county who lost their jobs when the Mill closed. Many of them are eagerly awaiting a new buyer to again employ the workforce that once occupied this facility. They haven't given up this hope and we would ask that you all don't give up on them.

On behalf of the Western Maryland Central Labor Council and all our affiliates we urge your committee to give an unfavorable report to SB168.

Sincerely,

George A. Koontz

President WMCLC

Domtar_UNF_SB 168

Uploaded by: Nowicki, Stefan

Position: UNF



February 4, 2020

The Honorable Delores Kelley, Chairwoman
Senate Finance Committee
3 East Miller Senate Office Building
11 Bladen Street
Annapolis, Maryland 21401

**Comments on Senate Bill 168 – Electricity – Renewable Energy Portfolio Standards –
Qualifying Biomass**

Dear Chairwoman Kelley:

Thank you, Chairwoman Kelley and members of this committee for the opportunity to submit comments on this legislation, SB 168. My name is Steve Thomas, and I am Senior Manager of Energy Contract for Domtar Corporation. Domtar strongly opposes SB 168 and any efforts to raise utility rates on Maryland ratepayers.

Domtar is a large producer of communication, specialty and packaging papers, market pulp and absorbent hygiene products. We are the market leader in North America in uncoated freesheet papers (your typical office writing and printing papers) employing nearly 10,000 men and women across the United States, Canada and Europe. Since 2013, Domtar has been selling renewable energy credits (RECs) to support Maryland's Renewable Energy Portfolio Standards from three qualifying facilities in Kingsport, Tennessee, Plymouth, North Carolina and Johnsonburg, Pennsylvania.

These three facilities, like most pulp and paper mills in North America use "black liquor" or liquid biomass to generate electricity. In many cases, this electricity is consumed internally by the pulp and paper making process, but in some case excess is sold back on to the grid. Black liquor includes the organic "glues and sugars" left over after the useful wood fibers have been removed from pulp wood. Collectively these glues and sugars along with water and inorganic catalysts that help release the fibers from raw wood make up what is known as black liquor.

The wood fibers released during the pulping process are used to make every day products like tissue, hygiene products and paper. Wood fibers are an increasingly important component of a clean future by providing sustainable replacements to products like drinking straws and grocery bags that are still made from fossil-based plastics.

Pulp and paper companies burn black liquor as an economic and environmental requirement of the manufacturing process. The really amazing thing is that only the wood-based organics get

burned. The inorganic catalysts remain after combustion and are reused, over and over again, to release more fiber during the pulping process in a near endless cycle. Those with concerns about black liquor are right when they say that paper companies have always burned black liquor. The point they miss, though, is that we haven't and wouldn't always create electricity by burning black liquor.

The equipment that turns the combustion of black liquor into electricity is expensive to build, expensive to maintain, and unnecessary to the pulp and paper manufacturing process. Selling the renewable attributes generated during the process is one of the ways that we can continue to offset the tremendous cost of creating renewable electricity. If paper companies quit generating electricity from black liquor new, more expensive, generation would have to be built. The cost of the new generation would be carried by all electric customers with residential and small commercial users usually paying a disproportionately higher share.

It is often said that carbon emissions of black liquor and other biomass-based generation are as high as the emissions of coal-based generation. The important point of distinction is that the CO₂ released from burning black liquor and all other biomass was in atmosphere when it was absorbed by a growing tree. The tree "sequestered" the CO₂ during its life. This CO₂ is released when the tree stops growing, whether it simply falls to the forest floor, or whether it is used to create electricity. This is why biomass is rightfully considered as "carbon neutral" because, just like wind and solar, it simply does not increase atmospheric CO₂ levels. In fact, burning is better for the environment than the alternative, since a decaying tree releases some of its sequestered carbon as methane which has more than 25 times the greenhouse effect as simple CO₂.

The real environmental success story behind the pulp and paper industry is that it takes roughly one million forested acres that are sustainably managed and biologically diverse to support the average sized pulp and paper mill. Each of these one million acres has a wide cross-section of age classes of trees where flora and fauna thrive. These forests are esthetic centers of human recreation helping to purify the air and water by their very existence. Compare this to the sterile footprint necessary for wind and solar installations. Compare the forests where birds can raise their young with wind turbines that are known to kill hundreds of thousands of birds annually. Which is more beneficial in the fight against global warming, one million acres of growing forests or 6,000 acres of sterile wind farm?

By the way, these same forests provide thousands of ongoing, sustainable jobs along with the paper products that make our lives easier. Wind and solar farms provide only a few jobs during initial construction and almost no jobs afterwards. It takes 17,000 acres of wind farm or 3,700 acres of solar generation to create as much renewable energy as a single average paper mill – there are approximately 10 pulp and paper facilities that qualify for Maryland's RPS program.

To put this into perspective, the city of Baltimore covers approximately 92 square miles, and to replace the electricity generated from those ten qualifying pulp and paper facilities would take 57 square miles (37,000 acres) of solar panels or 265 square miles (170,000 acres) of wind farm (half and three times the size of Baltimore, respectively). Another fact is that the sun does not always shine, nor does the wind always blow, but our facilities operate 24/7, providing hundreds

of direct jobs in rural communities and thousands of indirect jobs, all while maintaining millions of acres of forest land and providing around-the-clock renewable generation.

Recent articles in the Baltimore Sun and other Maryland newspapers accurately point out that “the price of RECs dropped because of an oversupply of these credits.” In fact, that cost of a REC to a Maryland ratepayer has dropped from an average of \$15.55 in 2014 to an average of \$6.23 for 2018 which is less than half of the 2014 price. Black liquor resources are saving Maryland ratepayers many millions annually by ensuring a supply of energy that is both renewable and affordable.

It has been cast as a negative that pulp and paper companies are large, solvent corporations. This is actually a very good thing and contributes to our mission to be a good corporate citizen. Pulp and paper companies can and will continue to operate even if the prices of Maryland’s RECs are driven down to \$0/REC. This is and continues to be the intent of the original Maryland RPS. Solar and wind generators need and expect high REC prices – it is central to their entire business case. Our business case for burning liquid biomass is the production of pulp and paper, not electricity, and will remain so. Much of the support for eliminating competing renewables like black liquor is to keep REC prices higher and drive better profits for wind and solar at the expense of Maryland ratepayers.

Another often heard criticism, especially since the closure of the Luke paper mill, is that black liquor generation is now based entirely on out-of-state suppliers. However, wind and solar generation only produces local revenues during the short construction phase. Afterwards, the revenues from the in-state wind and solar generators flows to the corporation that developed the project and in most cases that is outside the bounds of Maryland, all while supporting next to no jobs in Maryland or outside. Would the legislature support a solar array half the area of Baltimore to simply replace renewable energy generated from liquid biomass, only to see all the profits go to places like California?

In vying to achieve its green energy goals, Maryland should first and foremost consider its citizens – its rate payers. Any disruption to the market, such as removing 15% of the supply of RECs abruptly, will cause a harsh spike in prices, despite warnings to the opposite from the report issued by the Power Plant Research Program. Imagine if 15% of global gasoline production was removed, what would happen to prices? Those higher prices would immediately be passed on by utilities to regular consumers. Those households in lower-income communities would feel this increase the hardest and that harsh price increase would come in winter, at the beginning of January 2021, when many folks are relying on electricity to heat their homes.

The argument that prices would quickly stabilize made by the PPRP report is predicated solely on new generation entering the market to increase supply and drive down prices. But if a company’s entire business case is built around high REC prices ensuring returns to your shareholders and investors, why would you rush to build more qualifying sources just so you can drive down REC prices and see your own profits dwindle?

Consider the additional reality in the effort of removing liquid biomass from the RPS, is the fact that legislation passed last year, which doubles the renewables mandate to 50% by 2030 from 25%. In other words, not only would wind and solar have to make up for the share of RECs lost from liquid biomass, but would have to keep increasing by 2.5% per year until 2030; this critical

piece is omitted in the PPRP report. When demand out-rides adequate supply prices increase – it is simple economics. In considering this and similar legislation, Domtar urges the members of this committee to think first about their constituents, who will no doubt look for somebody to blame for their skyrocketing energy bills.

By removing qualifying green resources, upping the renewable energy mandate to 50% and intending to keep generation in the state of Maryland, the legislature is creating perfect storm of crippling electricity rate increases, which will affect already struggling Marylanders the most, all while sending millions of dollars to out of state interests that will artificially keep prices high in order to increase their bottom line.

Please do not hesitate to reach out to me should you have any questions at Steve.Thomas@Domtar.com or (803)802-8110.

Sincerely,

Steve Thomas, PE
Senior Manager, Energy Contracts

AFPA_UNF_SB168

Uploaded by: Stein, Abby

Position: UNF



**American
Forest & Paper
Association**

**American Forest & Paper Association (AF&PA)
Testimony in Opposition to Senate Bill 168
Electricity – Renewable Energy Portfolio Standard – Qualifying Biomass**

February 4, 2020

The American Forest & Paper Association (AF&PA) appreciate the opportunity to share information on Senate Bill 168. Because the bill is inconsistent with the goals of the Renewable Portfolio Standard (RPS) and unfairly discriminates against the bioenergy produced at paper and paper-based manufacturing facilities, we must respectfully ask the Committee to give SB 168 an unfavorable report.

Introduction

The American Forest & Paper Association (AF&PA) serves to advance a sustainable U.S. pulp, paper, packaging, tissue and wood products manufacturing industry through fact-based public policy and marketplace advocacy. AF&PA member companies make products essential for everyday life from renewable and recyclable resources and are committed to continuous improvement through the industry's sustainability initiative — [*Better Practices, Better Planet 2020*](#). The forest products industry accounts for approximately four percent of the total U.S. manufacturing GDP, manufactures nearly \$300 billion in products annually and employs approximately 950,000 men and women. The industry meets a payroll of approximately \$55 billion annually and is among the top 10 manufacturing sector employers in 45 states.

AF&PA's sustainability initiative — *Better Practices, Better Planet 2020* — comprises one of the most extensive quantifiable sets of sustainability goals for a U.S. manufacturing industry and is the latest example of our members' proactive commitment to the long-term success of our industry, our communities and our environment. We have long been responsible stewards of our planet's resources. We are proud to report that our members have already achieved the greenhouse gas reduction and workplace safety goals. Our member companies have also collectively made significant progress in each of the following goals: increasing paper recovery for recycling; improving energy efficiency; promoting sustainable forestry practices; and reducing water use.

Industry Presence in Maryland

The forest products industry in Maryland operates 44 manufacturing facilities employing more than 6,000 individuals with an annual payroll of over \$321 million and produced \$2.5 billion in products. The estimated annual state and local taxes paid by the Maryland forest products industry totals \$31 million.

We recognize that the major industry mill in the state—the Verso Luke mill—closed in 2019, so this information does not reflect that closure. But we want to emphasize that even without that mill, the industry is an economic contributor in Maryland, producing packaging, sales displays, and corrugated packaging, among other things. Also, as discussed below, the out-of-state companies that are selling biomass Renewable Energy Credits (RECs) into Maryland have a substantial economic presence in the state.

Removing Liquid Biomass from the RPS Sends the Wrong Signal About Maryland’s Business Climate

The closure of the Luke mill was a significant economic blow to the northwestern part of the state. A study by the Economic Policy Institute found that for every person employed directly by the paper industry, an additional 3.25 jobs are generated in supplier industries and in local communities as the result of employees spending their wages and paying taxes. Not only was the Luke Mill a major employer for over a century, but it is a backbone of the community, even serving as the power plant and wastewater treatment facility. Maryland policymakers are diligently working to find a productive use for the site and its assets.

It is unknown whether the site will be purchased by another party—whether another forest products company or a different business entirely. The site has various assets to offer a buyer that might be considering existing facilities around the country. However, to the extent a potential buyer could also realize a revenue stream from selling RECs, a potential purchase could be more attractive. Removing liquid biomass from the RPS sends the wrong signal about the state’s intention to return the site to productive use.

AF&PA Members Generate Renewable Energy, Have Improved Their Energy Efficiency and Reduced Fossil Fuel Use and Greenhouse Gas (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.

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 and 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.

Our commitments to renewable biomass energy and energy efficiency, including our extensive use of CHP, have led to a dramatic decrease in the sector's use of fossil fuel and GHG emissions. Energy purchased by member pulp and paper mills -- most of which is fossil fuel-based -- has decreased dramatically. In 2016 we achieved our *Better Practices, Better Planet* purchased energy efficiency goal with an 11.6 percent improvement since 2005, surpassing our 10 percent goal. Further, in 2016 AF&PA member GHG emissions were 19.9 percent less than the 2005 baseline year, almost achieving our new 2020 goal of 20 percent reduction.

The Bill is Inconsistent with the Goals of the RPS

When it was enacted, Maryland legislators provided several goals for the RPS, including to recognize the economic, environmental, fuel diversity and security benefits of renewable energy resources, and to establish a well-functioning market for renewable electricity. The bill would work contrary to these goals. It does not recognize the benefits of numerous renewable energy resources and decreases fuel diversity, and it interferes with the functioning of the market, as it creates favored resources and upends investor expectations. Furthermore, the legislature's frequent changes to the RPS make business planning in the state more challenging.

Baseload Power is Needed

It would be counterproductive to remove reliable baseload renewable electricity from the portfolio. In fact, this is exactly what is needed to complement intermittent sources such as wind and solar. With increased intermittent deployment, saturation becomes an issue. Once wind or solar facilities reach a saturation point, no additional energy can be used by the grid--in fact those energy sources might have to be curtailed. In other words, during the day if there is more wind or solar power being produced than is needed for the system, those sources would have to be curtailed to prevent a system overload. In contrast, pulp and paper mills mill generate their own renewable, carbon neutral energy to displace fossil fuels, and do so using stringent environmental controls.

The Bill Discriminates Against Biomass Energy Resources, Which Provide Clean, Renewable Power with Extensive Greenhouse Gas (GHG) Reduction Benefits

The bill would remove "mill residue, except sawdust and wood shavings" from the definition of Qualifying Biomass. Over the years that the legislature has been considering changes to the RPS, concerns have been raised as to the carbon neutrality and GHG reduction benefits of liquid biomass (also known as black liquor) in the RPS. Those concerns are unfounded.

Below here are some insights into the greenhouse gas reduction benefits of renewable biomass energy:

- A bipartisan amendment was agreed to in the 2017 Omnibus Appropriations Act passed in May 2017 that required three federal agencies to work together to create a consistent policy on biomass carbon neutrality. Former Maryland Senator 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. That provision has been included in the appropriations acts for 2018, 2019 and 2020, as well.

- A study referenced in the debate found enormous greenhouse gas reduction benefits from using biomass manufacturing residuals for energy in the industry—each year avoiding the emission of approximately 181 million metric tons of CO₂e. (Equivalent to removing about 35 million cars from the road.)
- The rest of the world recognizes the carbon neutrality of forest products manufacturing residuals, and competitors in Europe are rewarded with credits. The bill would set an adverse precedent for energy policy in the U.S., potentially placing U.S. mills at a competitive disadvantage.
- Most importantly, as indicated in Appendix II, specifically with regard to liquid biomass (black liquor):
 - During the previous Administration, the EPA found that black liquor can be *even better than carbon neutral* under certain scenarios, assigning it a negative biogenic assessment factor.
 - Dr. Timothy Searchinger, the scientist who prompted the discussion about the carbon neutrality of biomass, stated specifically that “black liquor from paper making” is an “advisable” source of biomass energy use. In addition, in a joint paper with Dr. Steve Hamburg, the Chief Scientist of the Environmental Defense Fund, both scientists stated that “biomass should receive credit to the extent its use results . . . from the use of residues or biowastes.”

The Renewable Energy Resources in the Maryland RPS Are Predominantly Out of State

Those selling liquid biomass RECs in the Maryland RPS have been criticized because they are predominantly out of state. However, the entire Maryland RPS is dominated by out-of-state resources. In 2018, only 19 percent of all the Tier I RECs used for compliance were from in-state—the same percentage for wind and solar Tier 1 RECs combined. Indeed, as for wind in particular, only 2.7 percent of the Tier 1 RECs originated in Maryland, while 8.9 percent of black liquor RECs did¹. Most wind RECs -- 4.7 percent -- originated in Illinois.

We recognize that with the closure of the Luke mill, there are no in-state liquid biomass resources selling RECs into Maryland. However, the out-of-state companies selling those RECs have a much greater connection and make much greater economic contributions to Maryland, than, for example, the wind resources from Illinois, which were the number one Tier I REC contributors in 2018. For example, WestRock has a facility in Hunt Valley and Baltimore providing over 100 jobs using base materials produced at the Covington paper mill that sells RECs into the Maryland RPS. Additionally, Pixelle directly employs 6-7 fulltime workers in their Delmar, MD facility

¹ Renewable Energy Portfolio Standard Report, With Data for Calendar Year 2018, Public Service Commission, December 2019 (“PCS RPS Report”), Figure 6 (<https://www.psc.state.md.us/wp-content/uploads/CY18-RPS-Annual-Report.pdf>).

with a \$1 million operating budget and \$9 million dollars' worth of timber purchases which helps many people in the value chain practicing sustainable forest management in the state.

Biomass Energy is Clean Energy

The forest products industry is making large investments in highly efficient biomass energy that meets stringent state-of-the-art environmental standards. Biomass is burned in industrial boilers under very exacting conditions to optimize efficiency and production of energy. Boilers are operated from highly sophisticated, computerized control rooms that continuously monitor combustion conditions. EPA continuously examines air regulations to ensure they adequately protect public health and the environment. EPA recently confirmed there are no significant risks from recovery furnaces and other major parts of pulp and paper mills on the surrounding areas.²

Other Resources are Growing Rapidly

Wind and Solar RECs have rapidly increased their share of the Tier I RPS, while liquid biomass' share has decreased significantly. As stated in the Maryland Public Service Commission's 2018 RPS Report:

“Total wind RECs retired for compliance have nearly tripled since 2015, and year-over-year wind REC retirements increased by approximately 43 percent. In contrast, black liquor (BLQ) REC retirements have fallen to the lowest levels since 2013, with a year-over-year decrease of about 23 percent.”³

If the bill's sponsors' goal is to favor wind and solar RECs over liquid biomass, it seems that the market is heading in that direction anyway. There is no need to disrupt the market and the business plans of electricity suppliers and REC providers by enacting a complete ban on liquid biomass RECs.

Finally, the bill is overly broad and would remove from the RPS more than just liquid biomass or black liquor. While we do not support removing liquid biomass from the RPS, if the bill moves forward it should be clear that only “black liquor” or “liquids derived from mill residues” are excluded from the definition of “Qualifying Biomass.”

Conclusion

The forest product industry has played an important role in helping Maryland and the nation meet their renewable energy objectives. SB 168 could impede our ability to continue doing so. We have increased energy efficiency, displaced fossil fuels and

² EPA conclusion of no significant risks for the major parts of pulp and paper mill operations was concluded in two phases, first in 2012 and then in 2017 as it finished its risk and technology review of the 1998 and 2001 Cluster MACTs.

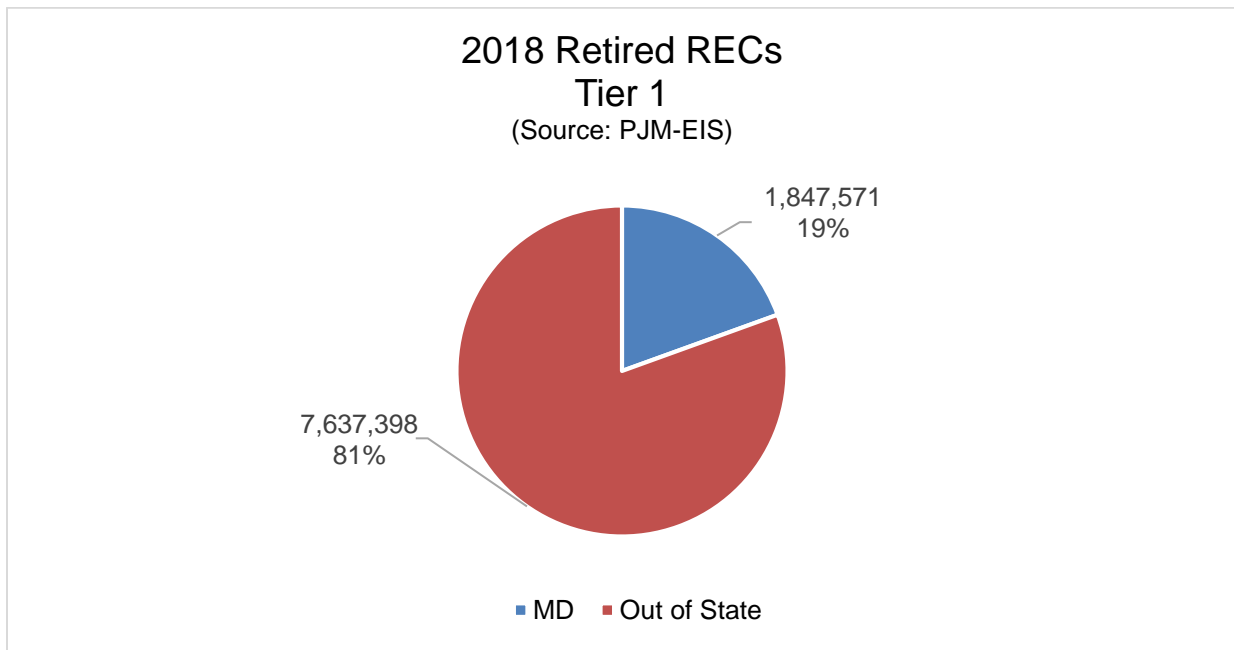
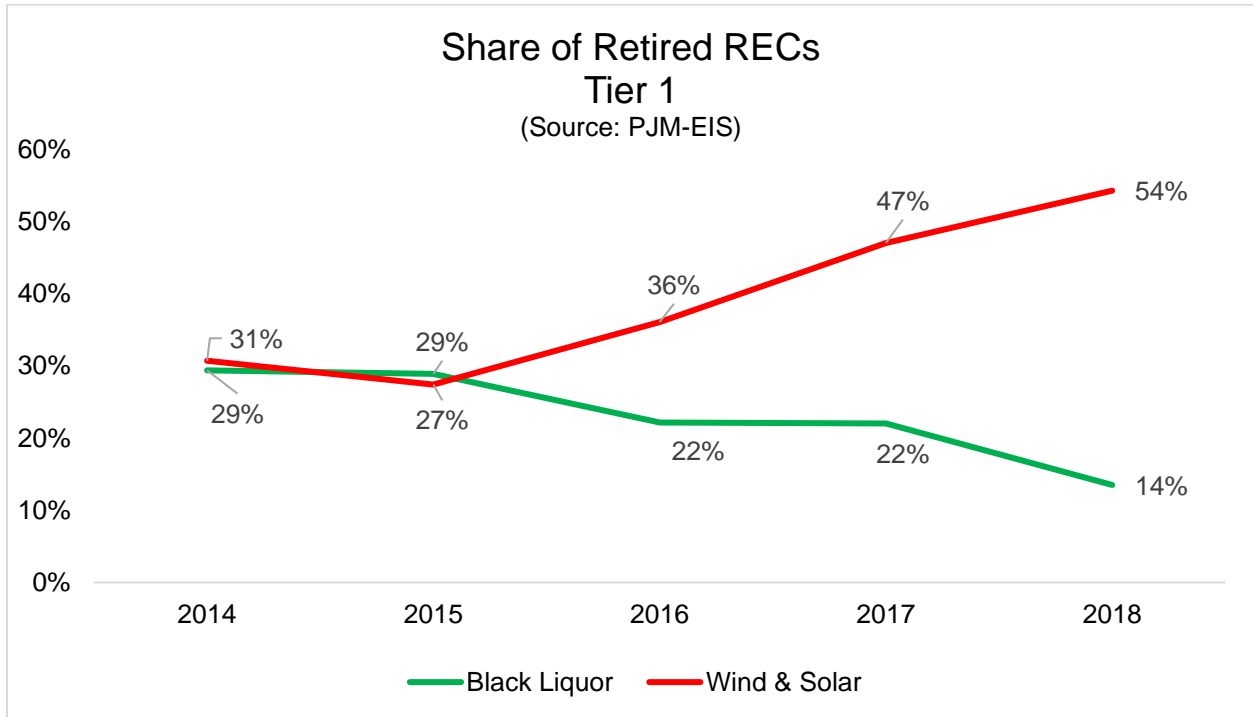
³ PCR RPS Report, page 13.

reduced greenhouse gas emissions in a very 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 Abigail Sztein, Director, Government Affairs, AF&PA at (202) 463-2596 or abigail_sztein@afandpa.org for further information.

Thank you.

APPENDIX I



APPENDIX II

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 CO₂ 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)
- **Dr. Timothy Searchinger** and Ralph Heimlich “Avoiding Bioenergy Competition for Food Crops and Land.” World Resources Institute (2015) (**listing “black liquor from paper making” as “advisable” sources of biomass energy use**) (p. 22 and Table 3, p. 24)
- **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.
- 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 CO₂-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 CO₂-eq/yr.”)

- 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 CO₂ 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 CO₂ 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 CO₂ 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)

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