

BWB Testimony - SUPPORT HB 583.pdf

Uploaded by: Aiosa, Jenn

Position: FAV



HB 583 – Climate Solutions Now Act – SUPPORT

Dear Chairmen Brave and Davis, and Members of the House ENT and ECM Committees:

Blue Water Baltimore is the watershed-based nonprofit focused on improving water quality and community resilience within Baltimore City and Baltimore County, and home to the Baltimore Harbor Waterkeeper. **We request your support of HB 583 – Climate Solutions Now.**

The Mid-Atlantic region is already experiencing the impacts of changing climate. In 2017, Blue Water Baltimore worked with researchers at the US Geological Survey and the Cary Institute of Ecosystems Studies to evaluate 20 years of data in the Gwynns Falls watershed in Baltimore County and City. This evaluation showed that rainfall has demonstrably increased and has impacted the health of this watershed.¹ The Baltimore region is increasingly experiencing “flashy” storm events that lead to local flooding, property damage, and in Baltimore City, the discharge of untreated sewage into homes and businesses due to old, leaky infrastructure.

Many communities in Baltimore are also subjected to increasing summer temperatures, called the “urban heat island” effect, because extensive pavement and few trees exacerbate heat. In 2018, the National Oceanic and Atmospheric Administration (NOAA) measured summer temperatures across City neighborhoods at the same times in different locations and found that summer temperatures on a single day could be as much as 16° hotter in neighborhoods with fewer trees and more impervious cover². Many of these neighborhoods have higher populations of Black residents, higher rates of poverty, and higher incidences of poor health outcomes including respiratory ailments like asthma.

House Bill 583 would help reverse these disturbing trends by:

- 1) Committing the state to aggressive, but necessary, reductions in greenhouse gas emissions that trap heat and pollutants in our cities and towns,
- 2) Mandating that a percentage of all future climate spending go to communities already overburdened by the impacts of climate change, like urban heat and flooding, and
- 3) Prioritizing climate mitigation efforts including the planting of some 5 million trees, with a minimum target for trees in our most impacted urban neighborhoods.

Why are Trees so important? Where will they go?

Baltimore City has about 2.8 million trees, covering roughly 27% of our neighborhoods, parks, and developed lands. According to Tree Baltimore, a citywide partnership between our BCRP Forestry Division, US Forest Service, and local nonprofits, these trees provide critical economic, environmental, and public health benefits to residents, including:

- **\$3.3M /yr in energy savings** by shading buildings from summer sun and blocking winter winds,
- **\$10.7M /yr storing 527 tons of carbon**, the harmful gas that fuels the greenhouse effect,
- **\$3.8M /yr removing 700 metric tons of air pollution**, including CO and NOx, and
- **\$1.6 M /yr removing 244 metric tons of ground-level ozone**, the main ingredient in smog and leading contributor to asthma.

¹ Factors affecting long-term trends in surface-water quality in the Gwynns Falls watershed, Baltimore City and County, Maryland, 1998–2016. <https://pubs.er.usgs.gov/publication/ofr20181038>

² <https://www.noaa.gov/news/hot-days-in-city-it-s-all-about-location>

While 2.8 million trees may seem like a lot, it is **1.3 - 1.5 million trees short of Baltimore City's goal of 40% tree canopy** by 2030. Tree Baltimore and academic partners have mapped and prioritized the neighborhoods where tree canopy is lowest and opportunities for planting are highest. These partners also track at the neighborhood scale, changes in tree canopy over time, so that we have a dynamic picture of where trees can be planted. And finally, nonprofit organizations, including Blue Water Baltimore and the Baltimore Tree Trust, actively work with BCRP Forestry and neighborhood leaders across the region to ensure that residents understand the value and benefits of trees, including lower summer temperatures, higher home values, reduced stormwater, and improved respiratory outcomes. We work in partnership with communities to plan for, plant, and maintain trees every year.

The time for action on climate is NOW; the costs of doing nothing are already too high for many communities to bear. **As such, Blue Water Baltimore, on behalf of our thousands of members and supporters, respectfully urges a Favorable Report on HB 583.** Thank you.

Jennifer Aiosa
Executive Director
Blue Water Baltimore
jaiosa@bluewaterbaltimore.org

HB0583 Written Testimony 2.9.2021.pdf

Uploaded by: Ashley-Williams, Wandra

Position: FAV

February 9, 2021

BILL: **HB0583**
TITLE: **Climate Solutions Now of 2021**
POSITION: **SUPPORT**
HEARING DATE: **2/11/2021**
COMMITTEE: **Environment and Transportation**
SPONSOR: **Senator Stein**

Dear Mr. Chairman and Committee Members,

Climate XChange Maryland supports Senate Bill 0583 - the **Climate Solutions Now of 2021** that requires the State to reduce statewide greenhouse gas emissions by 60% from 2006 levels by 2030; requiring the State to achieve net-zero statewide greenhouse gas emissions by 2045; requiring the Maryland Department of Labor to adopt regulations establishing certain energy conservation requirements for certain buildings by July 1, 2022; establishing a goal of planting and helping to maintain in the State 5,000,000 sustainable trees of species native to the State by the end of 2030; terminating certain provisions of the Act; etc.

The planet is facing a climate crisis and the response from Maryland and other wealthy nations must be immediate and ambitious. We must ensure that those communities disproportionately burdened by the cumulative impact of environmental pollution and other hazards not only be an integral part of shaping our solutions but are keep harmless in the process of remediating the environmental damage .

In addition to including the Maryland Commission on Environmental Justice and Sustainable Communities, the bill establishes a 20-member commission, two of whom must be representatives of disproportionately affected communities. The Commission will develop specific criteria for identifying communities disproportionately affected by climate change, develop specific recommendations to address environmental justice concerns, reduce greenhouse gasses and co-pollutants, build climate equity and resilience within disproportionately affected communities, and set a percentage of state funds to be spent for the benefit of those disproportionately affected communities.

Another important aspect of the Climate Solutions Now bill is Job Creation and Worker Justice - the bill requires a new Work Group to convene with representatives from labor, legislators, the Secretary of Labor's office, climate groups, and renewable energy companies to make policy recommendations and develop strategies for how to best serve fossil fuel workers in Maryland and create transitions to jobs created by climate change.

For these reasons and more, Climate XChange urges a FAVORABLE REPORT on SB0583.

Respectfully submitted,

Wandra Ashley-Williams
Maryland Regional Director
Climate XChange Maryland
410-914-801

HB0583 - Balt Sustain Comm.pdf

Uploaded by: Avins, Miriam

Position: FAV

BALTIMORE COMMISSION ON SUSTAINABILITY
People ♦ Planet ♦ Prosperity

February 9, 2021

Delegate and Committee Chair Barve
Members of the House Environment and Transportation Committee

RE: **Support** for HB0583, Climate Solutions Now Act of 2021

Dear Chair Barve and Members of the House Environment and Transportation Committee,

We are writing in support of HB0583, Climate Solutions Now Act of 2021.

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

The Baltimore Commission on Sustainability has a strong interest in the success of HB0583, which would help achieve numerous goals of the 2019 Sustainability Commission, including those related to Greenhouse Gas Emissions, Trees & Forests, and Local Economy. We recognize that climate change disproportionately impacts many low-wealth communities and communities of color, including impacts to health, local environment, and income. This bill will directly assist these communities by reducing harmful carbon emissions in order to improve public health; ensuring that a portion of state climate funds are spent on environmental justice communities; helping to create jobs at all levels; and increasing tree canopy in underserved urban communities.

We urge the Committee to support HB0583.

Sincerely,

Miriam Avins
Mia Blom
Co-chairs, Commission on Sustainability

Cc: Delegate Stein

HB 583_FAV_MML.pdf

Uploaded by: Bailey, Angelica

Position: FAV



Maryland Municipal League

The Association of Maryland's Cities and Towns

TESTIMONY

February 11, 2021

Committee: House Environment & Transportation

Bill: HB 583 – Climate Solutions Now Act of 2021

Position: Support

Reason for Position:

The Maryland Municipal League supports House Bill 583, which provides ambitious and necessary goals to reduce the State's greenhouse gas emissions.

Though this measure will likely increase local expenditures, and imposes mandates on local governments, many of the proposed goals are phased in which is both reasonable and necessary. Climate change is a very real threat and MML supports mitigating its negative impacts on residents' lives, as well as municipal budgets.

For this reason, the Maryland Municipal League supports HB 583 and respectfully requests a favorable committee report.

FOR MORE INFORMATION CONTACT:

Scott A. Hancock	Executive Director
Angelica Bailey	Director, Government Relations
Bill Jorch	Director, Research and Policy Analysis
Justin Fiore	Manager, Government Relations

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HB0583_FAV_MCA_Bailey.pdf

Uploaded by: Bailey, Joyce

Position: FAV

Testimony for HB0583 - “Climate Solutions Now”

Committee: Environment and Transportation

Organization: Montgomery Countryside Alliance

Person Submitting: Joyce Bailey, Climate Change Liaison

Position: Favorable

Hearing Date: February 11, 2021

Dear Mr. Chairman and Committee Members,

Thank you for allowing our testimony today in support of HB0583, the Climate Solutions Now bill. The Montgomery Countryside Alliance was founded to promote sound economic, land-use and transportation policies that preserve the natural environment, open spaces and rural lands in Montgomery Country’s Agricultural Reserve for the benefit of all Washington Metropolitan area residents.

We strongly urge a favorable report on this legislation. The planet is facing a climate crisis which is affecting agriculture, communities and ecosystems both locally and throughout the world. The response from Maryland, the United States and other wealthy nations must be immediate and ambitious. And, importantly, we must ensure that those communities disproportionately burdened by the cumulative impact of environmental pollution and other hazards be an integral part of shaping our solutions.

Important reasons to support the Climate Solutions Now bill include:

Maryland Commission on Environmental Justice and Sustainable

Communities: The bill establishes a 20-member commission, two of whom must be representatives of disproportionately affected communities. The Commission will develop specific criteria for identifying communities disproportionately affected by climate change, develop specific recommendations to address environmental justice concerns, reduce greenhouse gasses and co-pollutants, build climate equity and resilience within disproportionately affected communities, and set a percentage of state funds to be spent for the benefit of those disproportionately affected communities.

Job Creation: The bill encourages new opportunities for employment in greenhouse gas reduction technologies, alternative energy supply and energy conservation, particularly in areas experiencing high unemployment or high rates of poverty. The bill will lead to creation of jobs, including in the energy, building, working lands, and transportation sector.

Worker Justice: The bill requires a new Work Group to convene with representatives from labor, legislators, the Secretary of Labor's office, climate groups, and renewable energy companies to make policy recommendations and develop strategies for how to best serve fossil fuel workers in Maryland and create transitions to jobs created by climate change.

For these reasons we urge you to vote favorably for HB0583.

CE Ball 2021 - HB 583 Climate Solutions Now Act of

Uploaded by: Ball, Calvin

Position: FAV



HOWARD COUNTY OFFICE OF COUNTY EXECUTIVE

3430 Courthouse Drive ■ Ellicott City, Maryland 21043 ■ 410-313-2013 Voice/Relay

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February 11, 2021

Delegate Kumar Barve, Chair
Environment and Transportation Committee
House Office Building, Room 251
Annapolis, MD 21041

Re: Testimony **IN SUPPORT** of HB 583: Climate Solutions Now Act of 2021

Dear Chair Barve and Members of the Committee,

I commend you and Del. Stein for your leadership in the fight for creating a clean, resilient and sustainable environment with introduction of HB 583, the Climate Solutions Now Act of 2021.

Two years ago, my Administration committed to the “*We Are Still In*” initiative. In doing so, we declared that we support climate actions proposed by the 2015 Paris Climate Agreement, of which the Biden Administration recently rejoined. Howard County remains committed to even more ambitious targets for decreasing emissions and further protecting our environment:

- Howard County will reduce greenhouse gas emissions of County government operations 45 percent below 2010 levels by the year 2030 with the goal of reaching zero emissions by 2050.
- By 2024, Howard County will receive 20 percent of its power for local government operations from renewable sources. We have begun implementing a power purchase agreement that will surpass this goal – by getting nearly 30% of our power from solar arrays built on Howard County government property and elsewhere throughout the county.
- By 2024, we aim reduce petroleum fuel consumption in its fleet by 20 percent.
- By 2024, we will reduce energy use in County facilities by 25 percent, well beyond the required 15 percent reduction. This effort will make Howard County a regional leader and the first to exceed state requirements.

Since taking office, my Administration proposed the strongest forest conservation law in the State to mitigate the loss of natural lands. We planted more than 50,000 trees through a \$1 million National Fish and Wildlife Federation grant and preserved a 5-acre, state-designated targeted ecological area in Savage as open space.



HOWARD COUNTY OFFICE OF COUNTY EXECUTIVE

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We broke ground on four new garden plots within the Long Reach Garden, the first community garden expansion in over a decade. Howard County also added 58 hybrid vehicles to the central fleet to help meet its fuel consumption goals.

My Administration will continue to do our part to fight climate change and now, the United States will once again be a global leader at the front by reentering the Paris Agreement. However, our efforts will fall short unless the state also takes an active role. This bill is an ambitious and necessary commitment to engage at all levels in the fight against climate change.

Thank you for your consideration of this critical piece of legislation and for your continued commitment to help lead the fight for climate change and environmental preservation resiliency. I urge a favorable committee report of HB 583.

All the Best,

A handwritten signature in blue ink, appearing to read 'Calvin Ball'.

Calvin Ball
Howard County Executive

CSN Testimony.pdf

Uploaded by: Barrett, Reese

Position: FAV



MaryPIRG Student Climate Action Coalition

, 2021

Testimony in SUPPORT of HB 0583 – *Climate Solutions Now Act*

Dear Chairman Barve and Members of the Committee,

MaryPIRG Student Climate Action Coalition supports HB0583, the Climate Solutions Now Act of 2021.

Globally, we are at a critical choice point that will determine the course of our future forever. Climate change is already here, and we are the last generation that will be able to course correct towards a livable future for all. However, we have the tools, resources and knowledge to take action right now.

This bill ensures Maryland will be part of the new green future by:

- Ensuring Maryland is in line with the current climate science by committing us to a 60% reduction in carbon emissions below 2006 levels by 2030 and to reaching net zero emissions by 2045
- Restructuring our approach to climate justice by mandating that a percentage of all future climate spending must go to “disadvantaged” communities in terms of climate change, a term to be defined by experts and stakeholders
- Ensuring that labor voices are represented in our planning process, and that jobs benefit those who need them most
- Taking several immediate steps to reduce emissions, such as planting 5 million native trees by 2030, electrifying state vehicles, requiring several net neutral buildings and mandating energy efficiency increases

MSCAC supports this legislation because we represent students and youth. It is absolutely imperative that the climate crisis is taken seriously and policy is enacted to ensure that we mitigate and adapt to these challenges in a just way. Our students want a livable future, and it is the responsibility of policymakers to look at the facts and leave behind a better world for us, their children.

International experts have urged action on climate with increasing fervor in recent years for good reason: the consequences of staying the course will be highly dangerous. Here in Maryland we have a lot at stake, with nuisance flooding, high heat days and storm surges already regular occurrences. We have an opportunity to listen to scientists now while signaling to the nation that Maryland is ready to embrace the new green economy. There is no more time to delay on meaningful climate action.

We encourage a FAVORABLE report for this essential legislation.

Signed,

Reese Barrett

Campaign Coordinator

MaryPIRG Student Climate Action Coalition
mscacoalition@gmail.com

HB0583-FAV-DTMG-2-11-21.pdf

Uploaded by: Bartlett, Olivia

Position: FAV



Olivia Bartlett, Co-Lead, DoTheMostGood Maryland Team

Committee: Environment and Transportation

Testimony on: HB0583 – Climate Solutions Now Act

Position: Favorable

Hearing Date: February 11, 2021

Bill Contact: Delegate Dana Stein

DoTheMostGood (DTMG) is a progressive grass-roots organization with more than 2500 members who live in a wide range of communities in Montgomery and Frederick Counties, from Bethesda near the DC line north to Frederick and from Poolesville east to Silver Spring and Olney. DTMG supports legislation and activities that keep all the members of our communities healthy and safe in a clean environment and that address equity for all residents in our communities. DTMG strongly supports HB0583 because it is a comprehensive approach to reduce the greenhouse gas (GHG) emissions that drive climate change, to move Maryland towards a renewable energy future with good green jobs, and to bring Maryland's plans for addressing the existential threat of climate change into line with the scientific recommendations of the most recent Intergovernmental Panel on Climate Change.

Climate change is already here. Maryland already has nuisance flooding, high heat days, and storm surges on a regular basis. International experts have urged action on climate with increasing urgency in recent years for good reason: the consequences of not acting now will be very dangerous for our children and grandchildren.

In addition, a recent Harvard study found that a small increase in air pollutants from fossil fuel combustion causes a significant increase in the likelihood that someone will die from COVID-19. As Maryland recovers from the coronavirus and its associated recession, passage of HB0583 will both stimulate our economy and improve our air quality.

HB0583 will update Maryland's GHG goals to 60% reduction by 2030 and net zero emissions by 2045, and mandate that MDE cannot use highway widening or unproven carbon capture and storage technologies when planning how to achieve these goals. This will bring Maryland into line with the most recent IGPPC recommendations. HB0583 also requires the state to take several other immediate steps to reduce emissions, including planting 5 million native trees by 2030, increasing the incentive for farmers who enroll in the Conservation Reserve Enhancement Program, transitioning state light vehicle and bus fleets to zero-emission vehicles, requiring new commercial buildings and schools to be net neutral or solar ready, and mandating increases in energy efficiency in commercial and residential buildings. HB0583 will require MDE to calculate the social cost of carbon emissions, which is a big step toward understanding the real and total costs of GHG emissions, and also requires better monitoring of methane leakage from landfills.

Many studies have shown that low-income and minority communities disproportionately bear the consequences of air pollution and climate change. HB0583 addresses this problem with strong equity and environmental justice components that will:

- Require the Maryland Commission on Environmental Justice and Sustainable Communities to identify communities disproportionately impacted by the climate crisis.
- Restructure Maryland's approach to climate justice by mandating that a percentage of all future climate spending go to disproportionately affected communities.
- Ensure that labor voices are represented in the planning process, and that jobs benefit those who need them most.
- Exempt from personal property tax community solar projects on rooftops, parking lots, or brownfields that primarily benefit low-income households.
- Require that 10% of the 5 million trees to be planted are in urban areas that have been historically redlined or are economically disadvantaged.
- Create a grant program through the Chesapeake Bay Trust to fund community groups planting trees in underserved urban areas.

Importantly, HB0583 establishes adequate and sound funding mechanisms for the proposed programs. Up to \$20 million of funds in excess of \$50 million in Strategic Energy Investment Fund (SEIF) will be spent to implement the proposed programs. HB0583 does not propose to take away from any of the existing SEIF funding percentages; only funds that are above and beyond the usual annual budget for SEIF will be used for these programs. In addition, every year between 2022 and 2030, \$15 million from the Bay Restoration Fund will be used to enhance existing Department of Natural Resources and Department of Agriculture programs and create a new Urban Tree Planting program. As one of the most cost-effective practices to reduce water pollution, tree plantings are a worthy application of Bay Restoration Funds remaining following the State's completion of upgrades at major wastewater treatment plants.

In summary, HB0583 is a comprehensive approach that will create jobs, save lives, and reduce our contribution to the climate crisis in ways that address equity and environmental justice. Therefore, DTMG strongly supports HB0583 and urges a **FAVORABLE** report on this bill.

Respectfully submitted,

Olivia Bartlett
Co-lead, DoTheMostGood Maryland Team
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Boesch testimony HB583.pdf

Uploaded by: Boesch, Donald

Position: FAV

House Bill 583 Climate Solutions Now Act of 2021

House Committee on Transportation and Environment, February, 11, 2021

Testimony by Donald F. Boesch, Ph.D.

Chairman Barve, Vice Chair Stein and members of the Committee, I am Donald Boesch, a Professor Emeritus from the University of Maryland Center for Environmental Science. I served as the Center's President from 1990 to 2017 and, as such, as a member of the Maryland Commission on Climate Change and chair of its Scientific and Technical Working Group. I am now speaking only for myself as a scientist with substantial experience in climate science assessments.

I focus my comments primarily on the Environment Article §2–1204 of the bill, which increases the statewide greenhouse gas emissions that the State shall reduce by 2030 from 40% to 60%, based on 2006 levels. It further specifies that the State shall achieve net-zero emissions by 2045. Simply put, these deeper reductions in emissions and shorter timeframes are more consistent with the science supporting the implementation of the Paris Climate Agreement than Maryland's current Greenhouse Gas Emissions Reduction Act (GGRA). Let me explain.

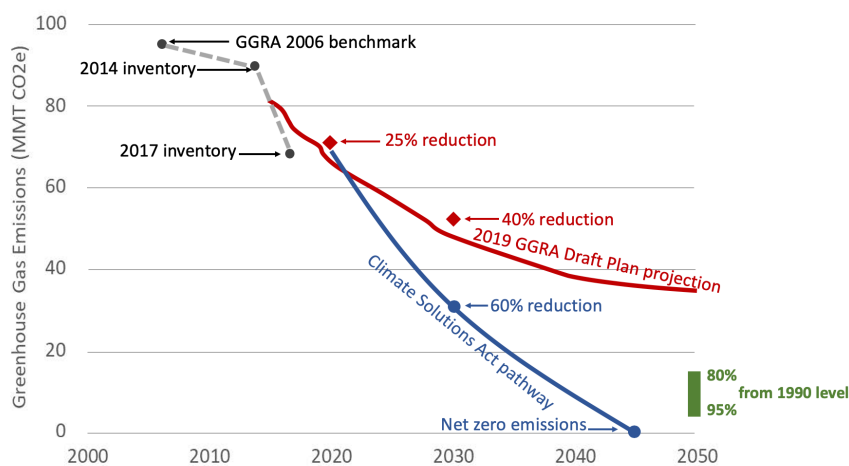
As you recall, the language of the Paris Climate Agreement was adopted by consensus in December 2015 and signed in April 2016. The Agreement's goal is to keep the increase in global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the increase to 1.5°C, recognizing that this would substantially reduce the risks and impacts of climate change. Maryland's GGRA was also amended in April 2016. It extended the State's commitment from 25% by 2020 to 40% by 2030, but also specified [§2–1205 (c) (3)] that the plans mandated by the Act "shall be developed in recognition of the finding by the Intergovernmental Panel on Climate Change that developed countries will need to reduce greenhouse gas emissions by between 80% and 95% from 1990 levels by 2050."

The amount and timeframe of reductions needed limit the increase in global temperature to 1.5°C had not yet been evaluated by the IPCC through its scientific consensus process. So, the IPCC undertook a *Special Report on Global Warming of 1.5°C* that was released in October 2018. The IPCC concluded that a 1.5°C limit to warming should not at all be considered safe, but risks associated with warming are substantially lower at 1.5°C than 2°C. To achieve this goal, humankind would have to reduce its net CO₂ emissions to zero by mid-century and substantially reduce its net emissions of other greenhouse gases, such as methane. Furthermore, we will have to rely on increasing the removal and storage of carbon from the atmosphere to reach net-zero and on producing negative emissions to compensate for any overshoot of 1.5°C.

The 2016 GGRA requires the adoption of an implementation Plan by the end of 2019. Sadly, the Department of the Environment did not make the Draft Plan available for public review until October 2019, and it has not been revised and formally submitted to the General Assembly. The Draft Plan did not demonstrate the urgency of reducing greenhouse gas emissions that is called for under the Paris Climate Agreement and the 2018 IPCC science report

available a full year before. As one can see from the accompanying graph, the Draft Plan (red curve) estimates that its elements would exceed the 40% reduction in emissions requirement by 2030, but it would achieve only a little more than a 50% emissions reduction by 2050, far removed from the 80-95% reduction from 1990 levels for which the existing Act indicates should be recognized, much less the net-zero emissions the IPCC indicates that we should be targeting.

In short, in its approach to the GGRA plan the Department has treated the 40% reduction target as more of an endpoint than as a waypoint toward the necessary decarbonization. It avoids commitments to more transformative actions that must be begun over the next decade in order to have a chance eliminating the remaining 60% reduction in emissions that would have to be accomplished over just the following two decades. Clearly, the new pathway required under the Climate Solutions Now Act (blue curve) is more consistent with the Paris Climate Agreement and the IPCC's scientific prescription for achieving it.



Meanwhile, Maryland, once a leader in policies and programs to address the climate crisis, has been falling woefully behind the responses of other states in addressing the climate crisis. Many other states have recognized the need to cut emissions deeper and quicker. Minnesota and Colorado are committed to 80% and 90% reductions in greenhouse gas emissions by 2050, respectively. California has committed to achieving carbon neutrality statewide by 2045 and New York State to reducing emissions by 100% by 2040. The governor of my native state of Louisiana, heavily dependent on fossil fuel production and manufacturing, has even committed his state to eliminating net emissions by 2050. By the end of last year, eight nations with the world's ten top economies have also committed to achieving net-zero greenhouse gas reductions by 2050 and China has committed to achieve this by 2060. As you know, President Biden has reentered the U.S. the Paris Climate Agreement and has also pledged to move the United States on a course of reaching net-zero emissions by 2050. Some 400 corporations, including oil and gas companies, and financial institutions have made similar, or even more ambitious commitments.

In contrast, Maryland's current greenhouse emissions reduction policies and programs seem no longer relevant, much less bold. While the targets set by the Climate Solutions Now Act might have been considered ambitious during last year's abbreviated Session of the General Assembly, they now seem very much in the mainstream. Nonetheless, the GGRA of 2016 provides a good foundation on which to build. Maryland probably has achieved emissions reductions sufficient to meet the 2020 mandate, although I question whether the dramatic reduction from the 2014 to the 2017 inventories shown in the graph is real or an aberration. The 2019 GGRA Draft Plan includes many actions that will take us further, but Maryland now needs to be much more aggressive and begin to plan and implement actions needed to take us to zero.

The Climate Solutions Now Act includes other meritorious provisions that I do have time to comment on, other than to state that the Draft Plan is rather timid in increasing emissions sinks and that planting large numbers of trees now is one of the most reliable ways to remove or store carbon over subsequent decades. The Climate Solutions Now Act will help Maryland do just that.

CDC HB 583 (Climate Solutions Now) Testimony.pdf

Uploaded by: Braganca, Meagan

Position: FAV



**Legislative Committee/ Environmental Issues Team
Columbia Democratic Club
Testimony on The Climate Solutions Now Act of 2021**

HB583/SB414

Bill Sponsors: Delegate Stein

Committee: Economic Matters Committee; Environment and Transportation Committee

Persons Submitting: Meagan Braganca, Legislative Chair Columbia Democratic Club

Position: Favorable

The Environmental Team of the Columbia Democratic Club urges you to support HB 583. The Climate Solutions Now Act of 2021 takes action against climate change by developing a plan to reduce net greenhouse gas emissions and implement several changes to improve transportation, sustainable buildings, forestation, environmental justice, and electrical generation. The Columbia Democratic Club's reach includes 500 Maryland residents. This group is dedicated to advancing policy and electing democratic candidates to office.

The steps that this bill calls for are critical to Maryland's future. HB 583 will help to reduce the impacts of this change and will save lives throughout the state. Creating strong goals for fighting climate change will allow Maryland to follow through with action. The objectives outlined in this bill will be difficult to reach, but they are achievable and necessary. Decreasing greenhouse gas emissions 60% by 2030 and net 0 emissions by 2045 will provide Maryland a chance for a future.

Environmental injustice is seen throughout the country and Maryland is no exception. Providing funds for combating climate change to the areas and communities that face the greatest impacts from this change will help to counter this inequality and increase the sustainability of Maryland as a whole. Increasing the energy efficiency of buildings and increasing solar production will benefit Maryland residents in several ways; these include reducing the effects of climate change, creating important local job opportunities, reaching the levels of solar outlined in Maryland's Renewable Portfolio Standard, and bettering air quality as Maryland transitions away from fossil fuels. In addition to these measures, the Columbia Democratic Club Environmental Team

supports the use of zero-emission vehicles. Using zero-emission vehicles allows for much needed improvement in public transportation and will reduce the carbon emissions associated with transportation. This proposal will also convene a new work group to include labor leaders, legislators, the Secretary of Labor's office, climate groups, and renewable energy companies to make policy recommendations on how to transition to a green jobs economy for the state. Lastly, planting five million native trees will help mitigate the carbon emissions that are produced within the state and will benefit local communities. Planting the trees in a timely manner, before 2030, will have a substantial impact to reduce climate change. The requirement that 500,000 of the trees be planted in redlined and economically disadvantaged areas will help to address environmental injustice.

Most members of the Columbia Democratic Club live in or near Ellicott City where increased storm intensity and flooding over the last few years has already taken lives. Please support HB583 to provide the possibility of a bright future for the residents of this state.

Please support The Climate Solutions Now Act of 2021, HB583/SB414, as written.

Thank you.

- CDC Legislative Committee Environmental Issues Team
- Jake Burdett, CDC President

Columbia Democratic Club

HB583_EnvMD_FAV.pdf

Uploaded by: Breimann, Kate

Position: FAV



Maryland PIRG

Maryland Public Interest Research Group

HB 583 - Environment- Climate Solutions Now Act of 2021

Environment and Transportation and Economic Matters Committees

February 11, 2021

Position: Favorable

Maryland's reliance on polluting fuels puts our health and safety at risk. Our state energy policy must conserve more energy, use the energy we have wisely and efficiently, and rely only on sources of energy that are clean, renewable and tread lightly on our planet. We support HB 583, the Climate Solutions Now Act, because it improves upon our state's current plan and puts us on a better path to reach these goals.

It's time to stop burning fossil fuels

With every day, it becomes even more clear that the impacts of global warming are accelerating. 2019 was hotter than any previous year in human history, breaking records last set in 2018 and 2017. We're feeling the effects – from severe flooding across the state and more frequent red-ozone days, to increasingly powerful storms and droughts throughout the U.S. and world.

Globally, we must reduce emissions from all sources to zero – ideally within the next 25 years. The Mid-Atlantic states are in a position to do much more, and we should. We need to take further action to increase energy efficiency, clean up our electricity, our transportation system, our buildings and our industries.

Because scientists agree that we must stop burning virtually all fossil fuels by mid-century to tackle climate change, Environment Maryland is committed to reducing our state's global warming emissions to zero quickly as possible. That's why state leadership, through measures like the Climate Solutions Act, are so important.



Maryland PIRG

Maryland Public Interest Research Group

Getting on the right track

Our state's current reduction framework does not come close to accomplishing the recommended cuts in emissions that we need in order to mitigate the worst impacts of climate change.

This legislation puts us on the right track to achieve our climate goals by updating Maryland's greenhouse gas reduction mandate to 60% by 2030 and net zero by 2045. Anything less ambitious than that simply will not be enough to combat climate change. It is nothing short of urgent that we pass HB 583 this year.

We have the opportunity this session to put us on a path to a better future. A future with clean air and a livable climate. A future with efficient public transit, solar power, wind turbines, and electric vehicles. We urge you to vote favorably on HB 583 because we believe that this bill will lead to that future.

testimonyHB583.pdf

Uploaded by: Brown, Lauren

Position: FAV

January 28, 2021

Testimony in SUPPORT of SB 414 – *Climate Solutions Now Act*

Dear Chairman Pinksy and Members of the Committee,
Lauren Brown supports SB414, the Climate Solutions Now Act of 2021.

Globally, we are at a critical juncture and we must all stand up and act. The choices we make are incredibly important. We have a responsibility to listen to science and do everything we can do to take care of the planet. Maryland should be a leader within our country when it comes to climate change legislation. It is imperative that we pass this bill and motivate a transition to renewable energy which is win-win for the environment and the economy. There are many people ready to act, ready to tackle climate change. Let us harness this momentum and make changes on a state policy level that will really help move us in the right direction.

This bill provides a pathway for Maryland to embrace a new green future by:

- Using climate science to direct us, mandating a 60% reduction in carbon emissions below 2006 levels by 2030 and to reaching net zero emissions by 2045.
- Climate spending considering environmental justice and making sure “disadvantaged” communities get the support they need.
- Dictating that labor perspectives are brought into the conversation and planning process.
- Implementing several immediate steps to reduce emissions, including planting 5 million native trees by 2030, electrifying state vehicles, requiring several net neutral buildings and mandating energy efficiency increases.

Many foreign countries have set policies and are working full throttle towards environmental sustainability. That is because we do not have time to do anything else but to give our all to protect this planet. Evidence of climate change is apparent right now in Maryland, with nuisance flooding, high heat days, and storm surges. There is no plan B. We need to act quickly and listen to the scientists. A green economy is the way of the future, the only way. We encourage a FAVORABLE report for this essential legislation.

Signed,
[Lauren Brown]
[page fact sheet](#))

hb583 climate solutions testimony.pdf

Uploaded by: Cardin, Nina

Position: FAV



Nina Beth Cardin
HB583
Climate Solutions Now Act
Favorable
2.9.21

Dear Chairman Barve, Vice-Chair Stein and Honorable Members of the Committee,

HB583 – Climate Solutions Now Act - is a powerhouse of a bill.

In one swoop, it will help mitigate the direst effects of climate change, contain emissions of greenhouse gases, enhance our urban and rural areas, significantly contribute to the economic and physical well-being of thousands of Marylanders and cool heat islands in cities thereby saving lives.

The component that promises to plant 5,000,000 trees – in the most urgent of places – is not just valuable for the environment but also for recreation, beauty and psychological health.

“Now” is the operative word in the bill’s title – we need to act swiftly and with determination.

Passing this bill is the right thing to do.

I urge you to pass this bill.

Respectfully,

Nina Beth Cardin
Maryland Campaign for Environmental Human Rights

02.09.2021 AWS_Climate Solutions Act Now Testimony

Uploaded by: Castelli, Erin

Position: FAV



ANACOSTIA WATERSHED SOCIETY

February 9, 2021

RE: SUPPORT HB0583 Climate Solutions Now Act of 2021

Erin B. Castelli
Interim President/CEO

Dear Chair and Members of the Environment and Transportation Committee,

BOARD OF DIRECTORS

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*Founder and
Honorary Member*
Robert E. Boone

I am writing to urge you, on behalf of the Anacostia Watershed Society (AWS), to pass the “Climate Solutions Now Act of 2021” (HB0583 / SB414), so that Maryland can take tangible steps towards reducing its carbon footprint for future generations and a more sustainable economy.

AWS is a 501(c)(3) organization, based in Bladensburg, Maryland in Prince George’s County, that was founded in 1989 by a small group of concerned individuals who decided that the environmental needs of the Anacostia River and its watershed communities required serious attention.

Since our founding, AWS has committed to planting and maintaining trees in environmentally degraded areas to increase the canopy cover of the Anacostia River watershed, located in both Maryland and the District of Columbia. Trees provide a plethora of ecosystem services that are beneficial to all Marylanders. Carbon sequestration is one very important service in our current era of climate change and increased natural disasters. Tree planting is an economical method for achieving not only carbon sequestration, but also managing stormwater runoff in the urban and suburban areas of the state.

By planting 5 million trees in Maryland, this bill will help not only the environment, but the economy by creating green jobs for low-skilled and skilled workers (i.e. nurseries and contractors). This is particularly critical during the COVID-19 pandemic, which has greatly threatened the nation’s economy.

Planting forests is a proven, affordable, and common-sense solution to ensure the safety of the water we drink, protect clean air, combat climate change, and provide open space that our community can turn to for physical recreation and mental well-being. Planting forests makes good financial sense and can provide a steady stream of economic and health benefits for Maryland families both now and in the future.

I urge your support of the “Climate Solutions Now Act of 2021.” Please pass this legislation to plant more trees, combat climate change, and protect our families’ health.

Thank you for your consideration and for serving our local community,

Erin Borgeson Castelli
Interim President/CEO

HB 583_CBF_SUP_Ches Bay Trust tree planting projec

Uploaded by: Clark, Robin Jessica

Position: FAV

Organization Name	Grant Amount	Geographical Area Served	Geographical Area Served	Project Title	Project Description	# Trees Planted
Arundel Rivers Federation	\$ 25,000	Central	Anne Arundel	Church Creek Restoration Initiative, Phase III	This project is composed of several watershed restoration projects and sustained outreach and awareness programs in two distinct and under-represented communities. Approximately \$90,000 in funding is needed to complete this \$1.7 million portion of the Federation's \$15 million Church Creek Initiative. Major efforts include: Bywater Mutual Homes Outreach Program, Allen Apartments Community Outreach Program, Bywater Mutual Homes Stormwater Retrofits, Bywater Branch Stream Restoration, and Allen Branch Stream Restoration.	932
Alliance for the Chesapeake Bay	\$ 136,404	Central	Anne Arundel	Asbury Broadneck UMC Cemetery Restoration - Category 2	The Alliance for the Chesapeake Bay and its partners propose a stream stabilization and water quality improvement project at Asbury Broadneck United Methodist Church. This SPSC and natural channel project will restore approximately 420 linear feet of eroding ephemeral channel, reducing pollutants to Whitehall Creek and further negative impacts to the historic African American cemetery located on-site.	33
Blue Water Baltimore	\$ 58,830	Central	Baltimore City	Supporting Community Development through Green Streets in the Belair-Edison Neighborhood	Blue Water Baltimore working with Baltimore City and the community partners of the Belair-Edison neighborhood will plant 450 street trees while greening over 2.5 linear miles of streetscape in northeast Baltimore in a diverse, but low tree canopy neighborhood. A vacant lot and garden will be greened as well. This project was requested by our planning process called Deep Blue.	450
Southeast Community Development Corporation	\$ 75,000	Central	Baltimore City	Connecting Tree Canopies in Highlandtown	The Southeast CDC proposes to increase the tree canopy and remove impervious surfaces to reduce run off in the urban neighborhood of Highlandtown, in southeast Baltimore City. Our objectives are to reduce run off by removing impervious surface, planting 350 new trees, engaging English and Spanish-speaking residents through workshops that promote awareness of watershed health and restoration, and teaching residents and business owners about their connection to the health of the watershed.	532

Baltimore Tree Trust	\$	50,000	Central	Baltimore City	Trees for Public Health	PROJECT DESCRIPTION Baltimore Tree Trust is seeking funding to expand the urban tree canopy in East Baltimore neighborhoods by cutting 100 new tree wells and planting 300, 2" caliper, trees. South Clifton Park and Broadway East currently rank amongst the poorest canopied trees in the city, with trees covering only 8% and 9% of total landmass respectively. Both neighborhoods have seen a historic divestment over the past sixty years, however, in the last year community partners and city officials have identified the area as a priority for reinvestment and have begun drafting plans to clean and green the neighborhood.	300
Ridge to Reefs	\$	50,000	Central	Baltimore City	Urban Farm Expansion and Ecological Restoration at BLISS Meadows	PROJECT DESCRIPTION This project is a collaboration between Ridge to Reefs and BLISS (Baltimore Living in Sustainable Simplicity) Meadows, a 10 acre land reclamation project geared toward food justice and creating equitable access to green space in the Frankford neighborhood in northeast Baltimore City. The project team will plant over 250 trees, expand an existing urban garden and farm, reforest over 2.25 acres, and create over 20,000 sq.ft of bio-swales. This project will engage and train the local community in agricultural and environmental restoration practices and will expand the urban forest of Baltimore while providing an accessible green space.	250
Blue Water Baltimore	\$	72,755	Central	Baltimore City	Greening Greektown and Growing Resident Roots	Blue Water Baltimore plans to green the Greektown Neighborhood in southeast Baltimore through street tree planting of over 200 trees and removing 0.16 acres of sidewalk. Building on previous community outreach work, we will engage more residents before, after, and during planting in education and outreach activities to ensure greater acceptance of the new trees and pride in the neighborhood. We will use this model for future outreach with our street tree projects.	215
Blue Water Baltimore	\$	49,991	Central	Baltimore City	Supporting Community Greening in Mondawmin Neighborhoods of Baltimore	Blue Water Baltimore will plant 180 street trees to improve 2 Mondawmin Neighborhoods of Baltimore City and grow the city's tree canopy. We are requesting funds based on both Robert W. Coleman and the Mondawmin community's interest and priority to continue to street tree planting in their neighborhoods. This project will both reduce stormwater volume and pollutants while improving the beauty and pride of these under-served but improving neighborhoods.	180

Baltimore Tree Trust	\$ 74,993	Central	Baltimore City	Green and Clean Initiative: Berea	Baltimore Tree Trust, Volunteering Untapped, and Baltimore Trash Talk are collaborating to apply to both the Outreach and Restoration tracks to expand the impact of the Trees for Public Health program and increase environmental awareness. This project will focus on the education and involvement of residents of Berea in efforts to "green and clean" their neighborhoods while working to reforest their portion of the Harris Creek watershed. With the community and the volunteer manpower provided by VU, Berea will plant 170 street trees, and participate in a community day focused on environmental education, and litter reduction.	330
Baltimore Tree Trust	\$ 74,737	Central	Baltimore City	Berea Trees for Public Health	Baltimore Tree Trust (BTT) will lead a community-based effort to plant street trees within the Berea neighborhood of the Harris Creek Watershed area of east Baltimore City. Community outreach will consist of tree stewardship activities to, e.g., door-door survey, individual and community incentives, tree planting and care classes, and meetings with community leaders and stakeholders. The restoration portion will result in 100 trees lining neighborhood streets, all planted by volunteers led by BTT staff. Post-planting, BTT will water the trees and work with the community on additional of tree care related activities such as mulching and pruning.	276
Blue Water Baltimore	\$ 50,000	Central	Baltimore City	Improving Tree Health and Canopy in Deep Blue Neighborhoods	Blue Water Baltimore will target 3 neighborhoods in our Deep Blue Program to plant street trees to reduce the urban heat island effect and polluted runoff. Working with neighborhood partners and match from Baltimore City, we will plant 160 new trees and remove over 8,000 sf of concrete. Existing and new trees will live in homes with greater exposed soil. This will positively impact 150 homes in 3 low-income, diverse, and low tree canopied neighborhoods.	160

Blue Water Baltimore	\$	49,892	Central	Baltimore City	Supporting Community Greening in the Brooklyn and Curtis Bay Neighborhoods of Baltimore	PROJECT DESCRIPTION Blue Water Baltimore will support the Curtis Bay and Brooklyn communities located in South Baltimore to increase tree canopy within prioritized resident blocks and supported by resident led outreach. Last fall, we successfully planted 125 new street trees in Brooklyn. This spring, we plan to continue the project in Curtis Bay by adding 150 more trees. Both neighborhoods share a history of resiliency in the face of disinvestment, polluting industry and a general lack of city resources.	150
Canton Canopy	\$	38,900	Central	Baltimore City	Canton Canopy Tree Pit Creation Spring 2020-Fall 2021	PROJECT DESCRIPTION Canton Canopy is seeking a grant in the amount of \$38,900 to reduce impervious surface area, treat stormwater, green the neighborhood, and clean and cool the air in the Canton neighborhood of Baltimore City by creating tree pits, planting trees, and maintaining the trees once planted. Canton Canopy proposes to create approximately 150 new tree pits in the sidewalks along Fait and Linwood Avenues to achieve community engagement, increased tree canopy, and reduced stormwater runoff throughout the next year and beyond. These activities and subsequent outcomes will be achieved through community volunteer events planned and run by residents of Canton.	150
Blue Water Baltimore	\$	50,000	Central	Baltimore City	Supporting Community Development through Green Streets in the Druid Heights Neighborhood Baltimore, MD	Blue Water Baltimore will create Green Streets in Druid Heights Neighborhood of Baltimore, MD. We will plant and establish over 125 trees and remove over 5,000 sf of concrete from targeted blocks for revitalization along 5,000 linear feet of street. This project is supported by the Druid Heights Development Corporation and has in-kind support from Baltimore City's Forestry Department, TreeBaltimore.	125
Baltimoreans United In Leadership Development	\$	35,496	Central	Baltimore City	Greening Communities – Oliver Community Urban Canopy Campaign	PROJECT DESCRIPTION This application is founded on a resident-driven initiative to improve the urban tree canopy in the Oliver community. Residents are working with a community organizing group (BUILD), a local community development housing organization (ReBUILD Metro), a local church (Knox Presbyterian), and a Baltimore-area organization that specializes in implementing tree planting projects (Blue Water Baltimore). This effort will see to the planting of roughly 120 trees during this phase.	120

Baltimore Tree Trust	\$	66,331	Central	Baltimore City	Fells Point Gateway Tree Project	PROJECT DESCRIPTION For the Fells Point Gateway Tree Project we (BTT) and our partners at the Upper Fells Point, Fells Point, Fells Prospect and Douglass Community Associations will be planting a "gateway" of trees along Eastern Ave. and Fleet St. to create a green corridor running parallel to Patterson Park and the waterfront. This gateway will serve as a welcome to the southeast region of Baltimore city, and clean and shade this heavily trafficked walk/drive-through for residents and visitors. Our goal is to enhance the walkability, aesthetic, and public health outcomes of this area through green infrastructure.	100
Civic Works, Inc.	\$	20,000	Central	Baltimore City	Orchard Stewards Training Program	This is an outreach, train-the-trainer project for Baltimore City designed to recruit and train orchard stewards who can parlay the growing interest in urban orchards, human nutrition, and locally produced food into greater knowledge of, appreciation for, and engagement in local ecosystems and watersheds.	100
The 6th Branch	\$	50,000	Central	Baltimore City	Broadway East: Montford Corridor Greenscape	PROJECT DESCRIPTION In Fall 2019, T6B received a G3 grant to develop a Conceptual Plan, or "Greenprint," for the Broadway East community in Baltimore City, which will be completed this spring. To jumpstart implementation of this exciting plan, T6B and community partners are seeking implementation funds to begin improvements to the eastern section of the neighborhood. Vacant lots along a corridor of N. Montford Avenue have been identified as the highest priority for immediate greening improvements. Proposed improvements include lot and debris cleanup, impervious removal, and native tree and perennial seed plantings.	91
Baltimore City Department of Planning, Baltimore Green Network	\$	27,768	Central	Baltimore City	Creating a Ribbon of Green to Protect the Chesapeake Bay	PROJECT DESCRIPTION This project will create engineering design and permits to remove 14,610 square feet of impervious surface in the historic African American community of Druid Heights. The newly unpaved area will be incorporated into Cab Calloway Legends Park which will be maintained by the City of Baltimore. This park will provide an amenity to 87 homes built by the Druid Heights community for first time homebuyers in effort to build intergenerational wealth within this asset-building community.	82

Mount Royal Community Development Corporation	\$ 24,726	Central	Baltimore City	Growing the Urban Tree Canopy in the Mount Royal District	Three of the four neighborhoods in the Mount Royal District are participating in Parks & People Foundation's Neighborhood TreeVision program which trains residents to plant, maintain, and care for trees. The program trains residents to think strategically and plan for long term greening goals. The program doesn't provide funding to create new planting opportunities. MRDCDC leveraged funding in 2015 to create 43 new pits, expand 15 pits, and plant 43 new trees. Due to the successful implementation and expansion of the original grant goals, MRDCDC will be applying for new funding to create 25 new pits and plant 25 trees.	35
Parks & People Foundation	\$ 21,764	Central	Baltimore City	SuperKids Environmental Education Camp 2019	PROJECT DESCRIPTION Parks & People will deliver environmental educational lessons to 500 Baltimore elementary students created and led by 10 City high school students to improve academic performance and promote environmental stewardship. Youth will use their knowledge of Baltimore and lessons learned in a MWEE to form a claim using the scientific method; and, identify and undertake potential actions. Actions will connect to Baltimore's streams and align with the P&P SuperKids Camp summer program. Professional development and training modules for teachers will be provided to incorporate into classroom lessons. Student-led activities may include cleanups, celebration of water/waterways, recycling, or mapping.	30
City Neighbors Foundation	\$ 74,741	Central	Baltimore City	City Neighbors Green Campus Implementation	PROJECT DESCRIPTION City Neighbors Foundation proposes to install four stormwater Best Management Practices, treating 12,415 sq. ft. of impervious surface, and remove 1315 sq. ft. of impervious surface from our City Neighbors Hamilton/High School campus, located in Baltimore, MD. We also propose developing experiential environmental education curricula around these practices that will be used in our 3rd, 6th, and 9th-grade classes. When complete, this project will increase wildlife and pollinator habitat, reduce stormwater pollution, and will help inspire and empower our next generation of environmental leaders.	30

Let's Thrive Baltimore (F.K.A. No One Left Unhelped Inc)	\$	5,000	Central	Baltimore City	Restore the Water in Baltimore	<p>PROJECT DESCRIPTION</p> <p>This project will improve natural resources, engage residents in outdoor activities that enhance communities.</p> <p>This project will inspire awareness to Baltimore residents on how to get involved with projects that enhance our community while saving and restoring neighboring waters that pour into the Chesapeake Bay. Educational workshop on the healthy harbor and protecting water quality. Pre-and post-surveys workshops participation hands-on training, city services contact information, and provide supplies to enhance the quality of life and reduce pollution in our community, storm drain stenciling workshops, and safety measures on shoreline cleaning.</p>	20
The 6th Branch	\$	37,767	Central	Baltimore City	Conceptual Plan – Master Plan for the Broadway East Greening Initiative	<p>PROJECT DESCRIPTION</p> <p>The Master Plan for the Broadway East Greening Initiative will identify environmentally sustainable infrastructure and land management techniques for adoptable, city-owned vacant lots in the Broadway East neighborhood of Baltimore City. This community-led effort will support future projects to add value to neighborhood open spaces; spur economic development; support watershed and Chesapeake Bay protection efforts; and beautify Broadway East. The Master Plan will conclude by developing 60% construction documents for four pilot projects, applying greening principles and maintenance techniques derived from the Master Plan development process.</p>	16
Second Chance, Inc.	\$	75,000	Central	Baltimore City	Gateway Greening Project	<p>The Gateway Greening Project is intended to control the flow and treat the water quality of stormwater from the parking lot in front of 1700 Ridgely Street and to reduce the pollutant load entering the Chesapeake Bay from this source. Secondary objectives are to: Increase awareness of the importance of stormwater management to the health of the Chesapeake Bay. Train individuals with barriers to employment in the construction and maintenance of stormwater management infrastructure. Demonstrate stormwater management best practices in a highly visible location along Russell Street, the Gateway to Baltimore.</p>	16

Jane's House of Inspiration	\$	29,000	Central	Baltimore City	A-MAZE-N Recovery Garden	The A-MAZE-N Recovery Fruit Garden will combine restoration and outreach to build a garden on an abandoned lot in the East Baltimore Midway (Greater Greenmount) Community at the intersection of North Avenue and Kennedy Avenue, a neighborhood that is known for high drug use and crime and few places to find fresh fruits. The main objectives of this project will be 1) to increase access to and availability of fresh fruit for neighborhood residents, 2) to educate community members about nutrition and healthy food choices, and 3) to beautify the neighborhood through transformation of open green space.	14
Friends of Carroll Park	\$	1,250	Central	Baltimore City	Carroll Park Pollinator Meadow	Our primary objective is to reconnect unserved communities with the environment and unique opportunities for recreation and education. This project will engage local communities in reclaiming one acre of turfgrass in Baltimore City's Carroll Park and installing a native meadow habitat from seed. Informal presentations will teach residents about the benefits and functions of pollinator habitat. Volunteers and students will assist in the installation of fencing, shrubs, and plugs. The Carroll Park Pollinator Meadow will include a nature trail, pollinator hotels, insect waterers, and educational signage, inspiring individual action to restore and protect the Chesapeake Bay watershed.	10
Hamilton-Lauraville Main Street Inc.	\$	30,000	Central	Baltimore City	"The Lot" at 4500 Harford Road	PROJECT DESCRIPTION Hamilton-Lauraville Main Street (HLMS) is transforming 4500 Harford Road, known locally as "The Lot" into a community space, kitchen, and economic hub. The Lot will offer community engagement and "foodie" related activities such as farmer's markets, live music, dining pop-ups, family activities, community meetings, and collaborations with local organizations. There will be a stage, a pavilion, and areas for the farmers market on the grounds. The installation of green features and permeable surfaces in front of the building will make The Lot more visitor-friendly, conducive for public events, and while reflecting the community values of being green.	10

Friends of Carroll Park	\$	5,000	Central	Baltimore City	Carroll Park Pollinator Meadow	This project will create a naturally vibrant landscape in Baltimore City's Carroll Park in which communities can immerse themselves and reconnect with nature. The Friends of Carroll Park and Pigtown residents will reclaim and protect one acre of underutilized turfgrass and install a native meadow habitat for pollinators and birds. The meadow will include a nature trail, educational signage, pollinator hotels, and insect sipping stones. This project will provide unique opportunities for recreation and education to surrounding communities and visitors while ultimately making Pigtown a more restorative place to live and work.	10
University of Maryland Medical System Foundation	\$	5,000	Central	Baltimore City	Druid Heights Green Space Project with University of Maryland Medical Center and the Druid Heights CDC (Reduction In Motion)	PROJECT DESCRIPTION Vacant properties in the Druid Heights community can serve as public greenspaces to help improve resident health and well-being. The University of Maryland Medical Center is seeking funds to clean up and prepare a vacant lot for a future greenspace in this West Baltimore neighborhood. The objectives of this project are to form meaningful partnerships to engage community residents in a restoration event that will decrease stormwater pollution and provide education about the connection between environmental and human health. Funding in the amount of \$5,000 is requested for vacant lot permitting and a native planting event.	10
Let's Thrive Baltimore (F.K.A. No One Left Unhelped Inc)	\$	5,000	Central	Baltimore City	OUR BAY MUST STAY	Our project will include a community clean-up and tree plantings with residents and community leaders from the Family Survivor Network, Mt. Pisgah C.M.E. Church, The Green Team of AFSIOVA School, DPW and Purposed Propelled Media; to include, trash removal from gutters, sewers and grass, planting trees,bushes, and plants and installing recycled window seal flower pots in 80 window seals. We will provide educational pamphlets to the community and show and tell our work to other communities to encourage change. Our project will include a community clean-up and tree plantings with residents and community leaders from the Family Survivor Network, Mt. Pisgah C.M.E. Church, The Green Team of AFSIOVA School, DPW and Purposed Propelled Media; to include, trash removal from gutters, sewers and grass, planting trees, bushes, and plants. We will organize community workshops, provide educational pamphlets to the community and show and tell our work to other communities to encourage change.	10

Peoples' Community Lutheran Church	\$ 74,997	Central	Baltimore City	The Peoples' Rain Garden	<p>PROJECT DESCRIPTION</p> <p>Peoples' Community Lutheran Church (PCLC), an African National church upstream of Herring Run in North Baltimore City, seeks funding to replace portions of PCLC's parking lot with an expansive rain garden that will treat and reduce stormwater runoff. This rain garden is one component of a comprehensive stormwater retrofit design made possible through a CBT Watershed Assistance Grant in 2017. This Outreach and Restoration Grant will be leveraged to obtain funding from other foundation and government sources to implement the remaining design components, which include a bioretention practice and three water-retaining tree pits. This restoration work will serve as a launch point for educational programs focused on increasing the adoption of stormwater management practices among our congregants, other congregations, members of the local African diaspora, and Idlewood neighborhood residents.</p>	13
Mount Lebanon Baptist Church	\$ 17,021	Central	Baltimore City	Faithful and Anointed Creations	<p>Mount Lebanon Baptist Church in the Greater Mondawmin Neighborhood of Baltimore City seeks funding to install three stormwater planters and a 500-gallon cistern along the north entrance of the church to reduce stormwater runoff from our campus and contribute to a robust education campaign that promotes stormwater practices and deepens relationships to our waterways in the surrounding residential community. The planters, cistern and outreach programs will be matched by the installation of two large rain gardens in front of the church, and part of the funding sought here will pay for the redirection of gutters required for the rain gardens to function. We are excited by the potential of transforming our church campus into a public demonstration site exhibiting the utility and beauty of stormwater landscaping.</p> <p>Mount Lebanon Baptist Church in the Greater Mondawmin Neighborhood of Baltimore City seeks funding to install three stormwater planters and a 500-gallon cistern along the north entrance of the church to reduce stormwater runoff from our campus and contribute to a robust education campaign that promotes stormwater practices and deepens relationships to our waterways in the surrounding residential community. The planters, cistern and outreach programs will be matched by the installation of two large rain gardens in front of the church, and part of the funding sought here will pay for the redirection of gutters required for the rain gardens to function. We are excited by the potential of transforming our church campus into a public demonstration site exhibiting the utility and beauty of</p>	28

Reginald F. Lewis High School Agriculture Department	\$	5,000	Maryland	Baltimore City	The funding for this project will be utilized to cover expenses in conjunction with the Baltimore Orchard Project partnership, to educate agriculture students on the importance of stewardship while incorporating watershed benefits in the Baltimore Inner Harbor. Students learn the full cycle through hands-on experiences over the course of the 2018-2019 school year.	20
Saint Ignatius Loyola Academy	\$	2,085	Maryland	Baltimore City	Thirty seventh grade students and three teachers will participate in the Oyster Restoration Project on September 21-22, 2017. This year's group will assist in the continuing creation and study of the Fort Carroll oyster habitat. The two day program includes introductory background education on the Bay, its life forms and ecology, analyzing water samples and catches along the way, and hands-on work in the Living Classrooms Foundation onboard ship labs. The culminating experience of the trip is when students remove spat (baby oysters) from a harvesting site at Downs Park and relocate them at the Fort Carroll oyster sanctuary.	16
Saint Ignatius Loyola Academy	\$	1,785	Maryland	Baltimore City	Twenty-seven seventh grade students and two teachers will participate in the Oyster Restoration Project on October 1-2, 2015. This year's group will assist in the continuing creation and study of the Fort Carroll oyster habitat. The two day program includes introductory background education on the Bay, its life forms and ecology, analyzing water samples and catches along the way, and hands-on work in the Living Classrooms Foundation onboard ship labs. The culminating experience of the trip is when students remove spat (baby oysters) from a harvesting site at Downs Park and relocate them at the Fort Carroll oyster sanctuary.	16

Saint Ignatius Loyola Academy	\$	2,187	Maryland	Baltimore City	<p>Thirty seventh graders and three faculty will participate in the Oyster Recovery Project Project on September 20-21, 2018. This year's group will assist in the continuation of the creation and study of the Fort Carroll Oyster Habitat. The two day program includes introductory background education on the Bay, its life forms and ecology, analyzing water samples and catches along the way, and hands-on work in the Living Classrooms Foundation onboard ship labs. The culminating component of the experience is when students remove spat (baby oysters) from a harvesting site at Downs Park and relocate them to the Fort carroll Oyster Sanctuary.</p>	15
Saint Ignatius Loyola Academy	\$	2,305	Maryland	Baltimore City	<p>PROJECT DESCRIPTION</p> <p>Twenty-nine seventh graders and three faculty will participate in the Oyster Recovery Project Project on September 19-20, 2019. This year's group will assist in the continuation of the creation and study of the Fort Carroll Oyster Habitat. The two day program includes introductory background education on the Bay, its life forms and ecology, analyzing water samples and catches along the way, and hands-on work in the Living Classrooms Foundation onboard ship labs. The culminating component of the experience is when students remove spat (baby oysters) from a harvesting site at Downs Park and relocate them to the Fort Carroll Oyster Sanctuary.</p>	15
Baltimore Urban Debate League	\$	5,000	Maryland	Baltimore City	<p>PROJECT DESCRIPTION</p> <p>Students at 2 schools will natives plants/trees in planters around their school to increase awareness about reducing carbon, increasing green space and reducing runoff into the Chesapeake Bay and Harbor. This project will include students presenting their research to elected officials on important ways to reducing harmful effects to the bay and the climate are explicitly linked.</p>	15

Deep Roots Inc.	\$	19,250	Eastern Shore	Cecil	A Sense of Place	'A Sense of Place' will provide a series of environmental education workshops on a monthly basis for children and teenagers experiencing homelessness in Cecil and Kent Counties. Our main objective is to provide these children and teenagers with hands-on opportunities to learn more about different facets of the natural world in which they live thereby engendering a sense of deeper connection and roots that may be lacking in their lives due to domestic upheaval resulting from homelessness.	12
Rosedale Center for Alternative Studies	\$	5,000	Maryland	Central		We will complete a comparative, longitudinal study of biotic and abiotic factors across the Chesapeake watershed along with a service learning component. We will work at source locations of water that ends up in the bay. The locations are: Gunpowder river, Back River, Norman Creek, Back River sewage treatment plant, Oregon ridge, Potomac river (Great Falls, MD), and the main stem of the Patapsco river. The service learning component will comprise of bulk tire/trash removal and tree planting. Preparatory lessons and reflections will take place in the classroom.	125
ShoreRivers	\$	52,928	Eastern Shore	Dorchester	Greening Urban Vacant Lots - Cambridge Neighborhood Revitalization	ShoreRivers and partners, Habitat for Humanity Choptank and Cambridge Main Street, are proposing a pilot program to green vacant lots in a low-income neighborhood of Cambridge, MD to create multi-use community spaces that have environmental and human benefits. The vacant lot revitalization cohesively supports current programming called Neighborhood Revitalization that focuses on housing improvements in this neighborhood. ShoreRivers and partners, including the City of Cambridge Planners, have envisioned a "green corridor" of walk-able green space that can be achieved through vacant lot revitalization, beginning with this pilot program.	20

Cambridge Main Street	\$ 100,000	Eastern Shore	Dorchester	Implementation/Construction - 400 Block Race Street Parking Lot Improvement Project	PROJECT DESCRIPTION Cambridge Main Street supports the goals of the Cambridge Creek Watershed Assessment and Action Plan submitted and prepared January 2018 by Shore Rivers and funded by the Chesapeake Bay Trust. The alleyway and public parking corridor next to Blackwater Bakery was identified by the report. When we learned the parking lot was about to be repaved with traditional impervious surface we brought the project partners together with the goal of beautifying and improving with pervious materials and bio-retention plantings to meet the goals of the action plan and set a precedent for adjacent parking areas downtown.	10
The Community Ecology Institute	\$ 40,000	Central	Howard	Gardens and Groves Civic Ecology Project Series	For the Gardens and Groves Civic Ecology project series, the Community Ecology Institute (CEI) will partner with the Columbia Association (CA) to plant two new rain gardens and create two new native tree groves and six new pollinator gardens – a new conservation landscape project in the open space of each of the ten Columbia Villages. This project will engage diverse participants from each Village and the surrounding community as contributing partners in the development, creation and maintenance of each of these projects to sustain the direct benefits for watershed and habitat health benefits. Over the course of the ten project planting events and three seasons of maintenance events, participants will receive experiential education and supporting resources on how to bring such conservation landscapes to their own homes and neighborhoods.	200
The Community Ecology Institute	\$ 20,000	Central	Howard	Howard County Watershed Weekends: Connecting families with their watershed through experiential education	This project will deliver a series of twelve "Watershed Weekend" events in which diverse groups of families will learn how to be active watershed stewards. Most Howard County residents live within a half-mile of a storm drain or stream that leads to the Patuxent and Patapsco Rivers and ultimately the Chesapeake Bay. Building on the proven track record of CEI's flagship program, Columbia Families in Nature, educational and fun family events will be created to increase citizen awareness of and participation in water quality issues and projects as well as conduct restoration projects in collaboration with community partners.	100

Dunloggin Middle School	\$	4,020	Central	Howard	Re-establishing the Buffer Zone for Plumtree Branch	<p>PROJECT DESCRIPTION</p> <p>During visits to the Dunloggin Middle School wetland area after the Ellicott City flood events, students noticed an enormous amount of erosion and damage to the buffer zone along Plumtree Branch located in the Little Patuxent River watershed. The main objective of this project is to reinforce the buffer zone along the stream by planting trees that will not only filter the runoff from the school's P.E. fields before entering the stream but also stabilize the ground and help prevent further erosion of the stream banks.</p>	75
Pocomoke Middle School	\$	2,498	Maryland	Lower		<p>PROJECT DESCRIPTION</p> <p>Students will be participating in a year long study of the causes, effects and factors involved in changing water quality indicators in the Pocomoke River. Students will be participating in data collection, native garden installation and school-based recycling activities. Students will also be working with rangers at Shad Landing throughout the year to complete various maintenance projects. We are submitting data for the Statewide Watershed Report Card and the Student Summit that will occur at the Maryland Statehouse in May. We will also be continuing our storm drain stenciling project. The culminating activity will be a day long canoe trip on the Pocomoke with educators from the Chesapeake Bay Foundation.</p>	30
Our House Inc.	\$	70,000	Capital	Montgomery	A Community-Based Restoration Implementation Project: Conservation and Education - Improving the Environment and Outcomes for At-Risk Youth	<p>Our House will use a grant to accomplish the following: to reduce groundwater run-off by planting 5,000 square feet of native-species trees on a hillside on our property that is currently planted with invasive pear trees that do not absorb any significant ground water run-off and are a detriment to conservation; to engage the young adult male trainees who reside at Our House in the planting and in a conservation education program to educate them about conservation and its importance and impact so that they become knowledgeable and can in turn share this knowledge with their families and communities when they leave Our House; to create a "demonstration" enclosure area where the habitat remains natural so as to demonstrate the impact of conversation vs. natural habitat; and to create a conservation garden planted with native species at a central and visible location on the Our House property to reduce erosion / increase ground water absorption that will be planted and tended to by trainees in partnership with a landscape architect that will include signage to educate the community at large / visitors to the property.</p>	50

Alliance for the Chesapeake Bay	\$ 131,926	Capital	Prince George's	Track 1 Water Quality: Trees for Sacred Places	The TFSP program is a collaboration between the Alliance, IPC, and congregations in Prince George's County. We will engage 15 congregations in planting 450 trees across their properties and an additional 6 congregations in planting 300 trees on public/private properties to increase urban tree canopies and promote riparian buffer restoration. Participating congregations will be introduced to the County's ACP and receive credit for participation in Option 2 with the tree plantings. We will further engage congregants through environmental and faith-based educational workshops, which helps the County achieve increased outreach to the broader community.	750
Alliance for the Chesapeake Bay	\$ 30,000	Capital	Prince George's	Trees for Sacred Places Prince George's County	The TFSP program is a collaboration between the Alliance, Interfaith Partners for the Chesapeake and congregations in Prince George's County. We will engage 20 congregations in planting 5 trees on their properties using volunteers. An additional 25 trees will be given to congregants to be planted off-site at residential properties, totaling 600 trees planted throughout the County. Congregants will be taught how to plant and maintain trees as part of the on-site planting before receiving their own trees. Participating congregations will be introduced to the County's Alternative Compliance Program and receive credit for Option 2 using tree plantings.	600
Anacostia Watershed Society	\$ 45,000	Capital	Prince George's	Anacostia Wetlands Awareness and Restoration Effort (AWARE)	The Anacostia Wetlands Awareness and Restoration Effort (AWARE) seeks to engage 450 local residents and students to restore wetland habitat along the main stem of the Anacostia River in Maryland to improve the filtering capacity of the river, increase watershed residents' awareness of the importance of wetland habitat, and combat the loss of habitat brought about by invasive plant and pest species. The project will restore 2 acres of tidal wetlands and the tree canopy in 12 riparian acres that been severely affected by the mortality of Ash trees decimated by the Emerald Ash Borer in recent years.	580

Maryland National Capital Park and Planning Commission	\$ 150,000	Capital	Prince George's	Tracks 1&2 M-NCPPC Stormwater Stewardship	M-NCPPC's Stormwater Stewardship Program will install stormwater runoff projects at three sites and restore streambank forest buffers at five sites. One project will be in the Lower Potomac watershed; the remainder will be in the Anacostia River watershed. M-NCPPC will collaborate with PGPCS and other environmental groups to offer stormwater education and engagement to fifth grade classes at public schools near M-NCPPC facilities, provide engagement projects for community and student volunteers, deliver stormwater outreach programs at festivals and other community events, and engage youth in the Summer Youth Enrichment Program in conservation jobs at Bladensburg Waterfront Park.	500
Central Kenilworth Avenue Revitalization Community Development Corporation, Inc.	\$ 125,542	Capital	Prince George's	Tree Planting Projects on Private Individual Residential Property and Support for Existing County Tree Canopy Programs	This project will scale-up CKAR's recent tree canopy pilot project resulting in the planting and maintenance of 320 native trees (most 7-12' tall and 1-1/2" caliper) in priority areas identified in county-commissioned technical reports and strategies. At least 80% will be planted on private residential property. Tens of thousands of residents will learn about the importance of trees and the county programs available to assist them to plant and care for them during outreach to generate and fulfill planting requests from homeowners. The main objectives are to increase tree cover in these communities to improve health, environmental and community benefit.	322
Central Kenilworth Avenue Revitalization Community Development Corporation, Inc.	\$ 134,031	Capital	Prince George's	Grow Green With Trees - A Local Collaborative's Residential Greening Project	PROJECT DESCRIPTION Project Description Through a collaboration with Neighborhood Design Center, Liberty's Promise and Mac&Sons Tree Experts, this project will address the need of our East Riverdale community to plant trees that deliver shade, privacy and address storm water requirements of sites along Riverdale Road (U.S. 410), Kenilworth Avenue and other communities in Greater Riverdale (East Riverdale). The project will result in the planting and initial mulching by a minority-owned county company; with pre-planting agreed-upon maintenance by the property owner to care and water the trees planted. Three-hundred native trees (most 6'-8" tall and having 1-1/2" caliper) in this priority area identified in county-commissioned technical reports and strategies. At least 80% will be planted on private residential property. Residents will learn the importance of trees and shrubs and the available county programs to assist them to care for the trees/shrubs. The project includes outreach to generate and fulfill planting requests from homeowners. Many will be planted in the rear yards of families along The Purple Line Corridor where 19 homes were demolished to pave way for this on-grade transportation system; and two demonstration sites. There are over 36,000 residents in these multi-generational, multi-ethnic communities in Greater Riverdale/Bladensburg.	300

Maryland National Capital Park and Planning Commission	\$ 250,000	Capital	Prince George's	Tracks 1&2 - M-NCPPC Stormwater Stewardship Program	M-NCPPC's Stormwater Stewardship Project will install remediation projects at three community centers to treat runoff from impervious surfaces; it will also plant trees to restore streambank forest buffers at four sites in the Anacostia River watershed; these plantings will be accompanied by removal of exotic invasive plants in the restoration areas. Each project will include projects for community volunteers and public school students and will be accompanied by outreach and citizen engagement projects related to stormwater runoff and solid waste issues. M-NCPPC will also develop a new outreach program to reach County residents at festivals and other community events.	470
Central Kenilworth Avenue Revitalization Community Development Corporation, Inc.	\$ 50,000	Capital	Prince George's	Technical Assistance in Engaging the Community to Plant and Care for 850 Trees in Prince George's County	This project funds technical assistance in engaging the community to plant and maintain 850 trees primarily in East Riverdale/Bladensburg TNI communities and adjacent municipalities. The main objectives are to increase tree cover in these communities to improve health, environmental and community benefit; build county-wide awareness and support for sustainable tree planting initiatives; environmental education and establish a pilot program that other communities in Prince George's County can complete to increase tree canopy in their communities.	123
Chesapeake Education Arts Research Society (CHEARS)	\$ 4,873	Capital	Prince George's	Chesapeake Intergenerational Open Seed Quest	PROJECT DESCRIPTION To foster the health and food security of the Chesapeake Bay Watershed, this project of the Chesapeake Education, Arts, Research Society (CHEARS), partnering with the School of Living (SOL) Heathcote Education, is to support the development and implementation of a series of 6 intergenerational hands on educational workshops, and the piloting of citizen science accessible seed trials. The project has a special outreach to underserved youth and to senior citizens and persons with disabilities and a goal of fostering rural-urban linkages. The project has a long term goal of establishing local heritage open organic seed exchange libraries throughout the watershed.	100

Global Health and Education Projects, Inc.	\$ 40,000	Capital	Prince George's	Family Tree Adoption Program (FTAP) of Prince George's County	The Family Tree Adoption Program (FTAP) of Prince George's County is a grassroots program that provides free native trees and shrubs to private homeowners using a family-based adoption and ownership model. Residents voluntarily adopt native trees or shrubs of their choice. Residents obtain free support from tree experts to determine the best trees for their yards, and then schedule a date for FTAP staff and volunteers to assist them plant their trees. Upon planting, residents take 100% ownership of these trees/shrubberies forever. FTAP presents a novel blend of on the ground tree planting that leverages the restoration components of tree planting to increase knowledge about personal stewardship actions that individuals can take in their own lives and/or own their own properties. FTAP fosters an ongoing community of tree lovers through online and in-person communication such as photo sharing FTAPs FB community page, newsletters, and informal education forums. FTAP will plant 100 trees and shrubs across PG communities with low tree canopy including the TNI and other high-priority underserved communities.	100
Anacostia Watershed Society	\$ 23,453	Capital	Prince George's	Harnessing the Power of Natural Filters	PROJECT DESCRIPTION Project Description Through this project, we will utilize mussels, wetlands, and trees to enhance habitat along the main stem of the Tidal Anacostia River and reduce stormwater runoff pollution making it to the Chesapeake Bay. We will construct floating wetlands with our fourth-grade Rice Rangers at Bladensburg Waterfront Park to give them a hands-on learning experience. We will create educational signage to teach visitors of Bladensburg Waterfront Park about the value of wetlands, mussels, and trees in restoring the health of the Anacostia River.	100
Anacostia Watershed Society	\$ 500,000	Capital	Prince George's	Track 5: Conservation Green Earth	This project will result in the development of the Conservation Green Earth program, which will meaningfully connect PGCPs students, teachers, and staff to stormwater management projects implemented on their campuses. This program aims to support implementation of Meaningful Watershed Education Experiences, the standardization and integration of stormwater education into the existing curriculum, professional development and educational resources for PGCPs teachers, and the installation of outdoor learning environments and site improvements on school campuses that complement stormwater retrofit projects implemented by the Clean Water Partnership.	100

Prince George's Green	\$	50,000	Capital	Prince George's	The Giving Trees	Prince George's Green proposes an Urban Tree Planting project targeting inside the Beltway communities. Prince George's Green has partnered with Ecoasis/Ciminelli's Landscaping to provide the native trees, planting, and maintenance of trees and with the Neighborhood Design Center to provide planting designs for common property such as Homeowner Associations, shopping centers, and municipalities. This project would reach out to private property owners through community workshops and would work in coordination with the Prince George's Department of the Environment.	100
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Parkdale High School	\$	200,000	Capital	Prince George's	Track 1 Water Quality: Creating Green Infrastructure for the Parkdale Community	This project will mitigate stormwater runoff through the design and creation of green infrastructure. It will provide hands-on stormwater stewardship education and community mentorships for Parkdale High School students.	50
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Anacostia Watershed Society	\$	11,510	Capital	Prince George's	Prince George's County Environmental Stewardship Training Courses	<p>PROJECT DESCRIPTION</p> <p>Project Description</p> <p>The Anacostia Watershed Society requests support from Prince George's County to implement our Watershed Stewards Academy (WSA) and Maryland Master Naturalist programs, through which we will train 60 watershed residents to be educated stewards of the Anacostia River and promote environmental stewardship in their communities. The goals of the programs are to promote awareness and appreciation of natural resources in Maryland, to develop a network of trained volunteers to serve as catalysts for environmental conservation, to provide a structured program to educate citizens, and to engage citizens in environmentally-focused service in their communities.</p>	50
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1853530	\$	-	Capital	Prince George's	Hall, Heidi - Urban Tree Canopy (1853530)	To plant 29 native trees at a residential property in Brentwood, Maryland.	41
Global Health and Education Projects, Inc.	\$	15,000	Capital	Prince George's	Track 1 & Track 2: Community Partnerships for Environmental Action and Sustainability (COPEAS)	Community Partnerships for Environmental Action & Sustainability (COPEAS) is a novel, 24-month-long, hybrid environmental action program that interweaves multicultural citizen awareness and engagement with a mid-sized water quality restoration project. COPEAS objectives are to 1) increase the awareness and participation of PG County residents, especially multicultural communities, in activities that improve the County's watershed health and local ecological ownership; 2) implement a mid-sized on-the-ground restoration-project that improves community aesthetics, water-quality, and watershed health by mitigating deleterious stormwater run-off where county's children play and recreate; and 3) lay robust foundation for readying our communities to be responsive to subsequent environmental projects.	109
City of Mount Rainier	\$	196,000	Capital	Prince George's	Track 1. Water Quality Projects – MOUNT RAINIER - GI projects for Commercial land uses	<p>PROJECT DESCRIPTION</p> <p>Project Description</p> <p>This application is a Track 1. Water Quality project. The overall objectives are to continue the progress made to date related to the design and construction of green infrastructure practices to achieve the overarching objective of making the City of Mount Rainier a model "green city".</p> <p>This specific application will focus on using the City's streets right of ways to treat stormwater runoff from commercial land uses in the city using a combination of bioretention / rain garden practices. Existing commercial land uses typically have large volumes of impervious surfaces, but currently individual owners are exempt from TMDL water quality requirements. The City can address this issue by installing control practices within its right of ways and also insure that success of the projects by providing the required maintenance of the practices.</p>	33

Carolina Missionary Baptist Church	\$ 2,200	Capital	Prince George's	CMBC Green Initiative	Carolina Missionary Baptist Church (CMBC) sits on 18+ acres of land in Fort Washington, MD. The CMBC Greening Project will allow us to do tree planting for improved storm water management, air quality improvement, and community beautification while also engaging our multigenerational congregation (which includes neighborhood residents) in an outdoor project. Interfaith Partners with the Chesapeake's Trees for Sacred Places Project, along with seasoned farmers and gardeners from our congregation will share knowledge and information with the volunteers who are eager to learn and apply that knowledge in their communities throughout the DMV area.	30
Town of Edmonston	\$ 1,250	Capital	Prince George's	Spring Environmental After School Club	PROJECT DESCRIPTION This will be an after school, bilingual environmental club for the town of Edmonston's middle school students and their classmates. The school partner will be William Wirt Middle School, with educational opportunities to be provided by a town educator, EcoLatinos, Latino Outdoors, Corazón Latino, the Anacostia Watershed Society, and the Chesapeake Bay Foundation. The club will be based at the Edmonston Recreational Center, with occasional field experiences in the area. The goal of this club is to engage the town's younger residents with environmental education, with a special focus on reaching those who are not English-proficient.	30
Saint Matthias Catholic Church	\$ 5,000	Capital	Prince George's	Educando y cuidando nuestra casa comun (Educating on and Caring for Our Common Home)	PROJECT DESCRIPTION The project we are looking to undertake is to develop a series of lectures and hands-on training in Spanish to teach about trees and their connection to the watershed. We will pair that education with a field trip and canoe ride at Jug Bay Wetlands Sanctuary to demonstrate trees in action and show the relationship between the two. The main objective is to raise awareness and demonstrate positive actions toward good stewardship in connection to the principles of our faith.	25

Friends of Lower Beaverdam Creek	\$ 114,227	Capital	Prince George's	RainWorks - Quincy and Moss Run Watersheds	<p>Design and build LID/ESD projects in Quincy Run Watershed vicinity. Incomes of property owners are inadequate to cover owner cost of projects otherwise eligible for Raincheck Rebates.</p> <p>Public works and development density contribute to extreme run-off/flooding conditions, damaging property in small rain events. Limited size, extreme grades, and proximity (to impaired receiving water) of properties create conditions requiring creative solutions. The multi-cultural community has a tradition of community service. Residents skilled in building and landscape trades produced a ready, able labor pool. Meticulous care that residents show to their property bodes well for continued project maintenance.</p>	25
Anacostia Watershed Society	\$ 384,057	Capital	Prince George's	Track 5: Treating and Teaching	<p>In order to connect students and teachers to stormwater projects on their campuses and support environmental literacy implementation in PGCPs, the Anacostia Watershed Society (AWS) will continue to collaborate with local partner organizations to implement the Treating and Teaching program. Using the foundational BMPs installed by the Clean Water Partnership as the focus, we will engage teachers and facilities staff in workshops, equipping them with the knowledge to utilize the BMPs as a teaching tool. Additionally, we will install outdoor learning areas at select schools to further enhance the ability of schools to conduct stormwater education on their school grounds.</p>	25
Town of Edmonston	\$ 74,720	Capital	Prince George's	Helping the Chesapeake's Water Quality by Creating a Green Street that Will Create Green Jobs	<p>Wedged between a state highway and the Northeast Branch of the Anacostia River and located next to a 13 acre brownfield, the runoff from this residential street brings toxins and trash into the Chesapeake Bay. But its residents want to change that by recreating this four-block thoroughfare in this low to moderate neighborhood, into a green street anchored by three rain garden that will capture the imagination of the community and 24 street trees. With a design shaped by the residents, this green street will protect and enhance the water quality the Chesapeake Bay area.</p>	27

Town of Capitol Heights	\$ 200,000	Capital	Prince George's	Chamber Avenue Green Street Project	<p>PROJECT DESCRIPTION</p> <p>The Town Council adopted a Green Street Master Plan in 2012 establishing the Town's commitment to incorporate green infrastructure practices as standard practice. This project is in alignment with this 2012 Master Plan.</p> <p>The objective of the project is to reduce the runoff from the roadway into the Watts Branch by reducing the road width, providing bike lanes to encourage alternative transportation to the Capitol Heights Metro station and provide water retention areas before any runoff makes it to the storm drains that empty directly into the Watts Branch stream which is a part of the Anacostia watershed.</p>	24
Town of Edmonston	\$ 148,000	Capital	Prince George's	1-Water Quality Retrofits for the 46th Avenue Green Street Project	<p>The project consist of 2 phases. Phase 1 includes design and construction of 8 curb side rain gardens located on 46th Ave between Ingraham Street and Lafayette Streets, which will treat 3.00 acres of impervious area. The second phase will address the older section of 46th Ave. which has a narrower ROW of 40 feet and does not provide a planting strip in which to locate the rain garden facilities. The Town will introduce an innovative practice, a permeable concrete curb & gutter section which is well suited to this narrow ROW and treat 2.8 acres of impervious surface.</p>	20
Neighborhood Design Center	\$ 15,000	Capital	Prince George's	Conceptual Plan - Windom Road Green Street	<p>PROJECT DESCRIPTION</p> <p>This project is to renovate approximately 1100 linear feet of Windom Road, between 39th Street and 40th Street, with streetscape improvements and green infrastructure. One block of Windom Road has been closed for decades, with a permanent barrier at the boundary of North Brentwood and Brentwood to separate the white and black communities. The green street will be a placemaking element and will improve water quality and reduce flooding in the neighborhood using green infrastructure elements. Signage will describe the environmental benefits and the connected history of the two towns.</p>	15

Town of Capitol Heights	\$	30,000	Capital	Prince George's	Chambers Ave Green Street	Improvements would occur on Chambers Ave, Capitol Heights Blvd, and Davey Ave to include bicycle lanes, improved pedestrian facilities, stormwater management enhancements, and streetscape/landscape/lighting improvements. Improvements are anticipated to be consistent with the 2012 Green Street Master Plan and generally consistent with the design concept plans submitted to the Town in August 2014, with stormwater improvements varying based on available right-of-way. The existing concrete channelized stream will be improved under a separate project in the Anacostia River Watershed Restoration Plan and is not anticipated to be disturbed as part of this project.	12
Interstate Commission on the Potomac River Basin (The)	\$	61,938	Capital	Prince George's	Track 2 Citizen Engagement	ICPRB's Score Four for Students, Schools, Streams and the Bay program will involve 400 students and 5 teachers from Northwestern High School (Adelphi), Parkdale High School (Riverdale), and the Academy of Health Sciences (Largo) in a series of watershed lessons and investigations that culminate in Student Sustainable Stormwater Action Projects at each school. ICPRB also will provide training to 8 teachers, and web pages containing stormwater lessons and community resources. Our goal is to provide the information, inspiration and County resources for individuals to become stewards who engage in sustainable stormwater actions on their campuses and in their communities.	11
Anacostia Watershed Society	\$	32,878	Capital	Prince George's	Greening Fairmount Heights	PROJECT DESCRIPTION The Greening Fairmount Heights project is a partnership between the Anacostia Watershed Society and the Town of Fairmount Heights to address stormwater runoff through community greening initiatives. We will work together to make the town-owned space on 61st Avenue into a vibrant community gathering place with increased urban tree canopy, native plant gardens, and educational signage to educate the community about how community greening can help absorb stormwater runoff while beautifying the community. Additionally, through this community greening initiative, AWS will engage town residents in clean-up efforts and other outreach and engagement events in the newly enhanced green space.	10

Cottage City	\$	4,060	Capital	Prince George's	Teaching Each Other in English and Español About Protecting the Chesapeake Bay	This proposal is to fund a year-long intercambio program where residents come together in fellowship once a month to teach each other about the environment and the Chesapeake Bay in English and Spanish. Those who are primarily Spanish speakers will teach residents how to speak Spanish and those who are primarily English speakers will teach residents how to speak English.	10
Town of Edmonston	\$	68,527	Capital	Prince George's	Track 1. Water Quality Retrofits for Lafayette Place Industrial Green Street Project	<p>PROJECT DESCRIPTION</p> <p>Project Description</p> <p>The Town of Edmonston is proposing to continue its initiative on its 4th green street located in the industrial district of Lafayette Place. This project will be Phase 4 of the industrial green street. Phase 1 included design and construction of 10 curb side rain gardens located on 46th Ave between Ingraham Street and Lafayette Streets. Phase 2 addressed the older section of 46th Ave. in which the Town is introducing an innovative practice, a permeable concrete curb & gutter section which is well suited to this type of narrow ROW. Phase 3 is ongoing and focused on Ingraham Street between 46th Ave and Lafayette Street. This 4th Phase will focus on Lafayette Place between 46th Ave and the northern town boundary. This project will treat 3.00 acres of impervious urban area, predominantly industrial land use. Treatment will be provided within the Town's right of way.</p>	10
Town of Edmonston	\$	169,530	Capital	Prince George's	Water Quality Retrofits for Ingraham Green Street Project	The Town of Edmonston is proposing to continue its initiative on its 3rd green street located in the industrial district of 46th Ave. This project will be Phase 3 of the industrial green street. Phase 1 include design and construction of 10 curb side rain gardens located on 46th Ave between Ingraham Street and Lafayette Streets. Phase 2 addresses the older section of 46th Ave. in which the Town is introducing an innovative practice, a permeable concrete curb & gutter section which is well suited to this type of narrow ROW. This Phase 3 will focus on Ingraham Street between 46th Ave and Lafayette Street. This project will treat 3.57 acres of urban area, predominantly industrial land use which includes 2.83 acres of impervious surfaces. Treatment will be provided within the Town's right of way.	10

Union Bethel AME Church	\$ 128,381	Capital	Prince George's	Track I Water Quality Clean Water for Union Bethel AME Church	The project will develop and implement an alternative compliance program for the church to ensure we receive the 100% impervious cover fee reduction available by including: 1) design and construction of two stormwater BMPs (one wet swale for the parking lot and one raingarden for the main church building); 2) outreach workshops on the impacts of individuals activities on water quality including the Rain Check Rebate Program and pet waste; and 3) good housekeeping plan development that will include elements such as water conservation, vegetation maintenance promoting native plant species, steps to reduce pesticides and herbicides use, and trash pickup.	10
New Hope Educational Institute	\$ 125,000	Capital	Prince George's	Water Quality NHA Parking Lot 1	We propose to replace 12,353.25 square feet of impervious asphalt into permeable pavers in the New Hope Academy parking lot in Landover Hills, MD. The objectives are to 1) capture and treat runoff from Varnum Street in Landover Hills, 2) reduce severe erosion in creek channel by decreasing flow volumes from Varnum Street, 3) educate students, teachers and local residence about how water moves through the neighborhood and the effects water has on the places where they live and learn, 4) engage students, teachers, staff members and parents in caring for the permeable paving.	22
Central Kenilworth Avenue Revitalization Community Development Corporation, Inc.	\$ 22,099	Capital	Prince George's	6801 Kenilworth Avenue	PROJECT DESCRIPTION CKAR CDC, Inc. requests funding as an adaptive and technical capacity project to be completed in our geographic service area. This area includes Riverdale and Riverdale Park, Woodlawn-Lanham and the towns of Cheverly, Bladensburg, Edmonston and the Port Towns. Most of this highly built-up area is within the Transforming Neighborhood Initiative (TNI) communities. The commercial corridors and residential driveways have a large amount of impervious paving, causing significant storm water management challenges that flow into the Northwest Branch, a tributary of the Anacostia River. This is a very diverse underserved area that includes significant Latino, African, Asian and African-American populations.	322

Global Health and Education Projects, Inc.	\$ 50,000	Capital	Prince George's	Track 4: Family Tree Adoption Program, Community Partnerships for Environmental Action and Sustainability (COPEAS)	The Family Tree Adoption Program is a grassroots program that provides free native trees or shrubs to private homeowners in Prince George's (PG) County, Maryland. The program helps green communities by increasing tree canopy, which, in turn, will improve air and water quality, community aesthetics, and provide benefits for years to come. Residents from 6 communities will voluntarily adopt native trees of their choice, obtain 1-year free support from tree experts on how to plant and care for these trees in their private yards and take 100% ownership of the trees/shrubs.	100
Maryland National Capital Park and Planning Commission	\$ 5,000	Maryland	Prince George's		PROJECT DESCRIPTION In this pilot program, Prince George's County students enrolled in environmental and agricultural career programs will participate in a summer jobs program in which they will plan and complete conservation projects, including vegetative restoration of a stormwater swale. Youth will earn certification as a Chesapeake Bay Landscape Professional Associate, about green infrastructure and careers in public lands management, green infrastructure, and sustainable landscaping, and satisfy graduation requirements. Parks and Recreation staff will work closely with CBLP mentors in order to be certified to administer the CBLP-A program independently and will offer this program to PGCPs students in the future.	150
University of Maryland College Park Foundation	\$ 5,000	Capital		UMD Alternative Breaks for the Bay	Alternative Breaks for the Bay is a year-long initiative to engage University of Maryland students in education, restoration, and protection projects related to the Chesapeake Bay through Alternative Break experiences. Student participants learn about the Bay's value to the region and its current condition, as well as environmental conservation topics at large. Students then travel to various Bay sites in Maryland, spending three to seven days immersed in the ecosystem and environment, learning alongside Chesapeake Bay Foundation staff, and providing support for restoration projects. Students return to campus to promote awareness and make personal commitments leading to a healthier Bay.	7200

Chesapeake Bay Foundation, Inc.	\$	563	Statewide	Student Restoration Engagement Network	PROJECT DESCRIPTION The Student Restoration Engagement Network at the Chesapeake Bay Foundation will get students involved in restoration events as volunteers throughout the year and gain insight into what environmental work takes place in their local watershed. Students will gain valuable hands-on experiences and make connections, while also adding to their college applications or resumes. The program will only require minimal maintenance on the part of full time CBF staff. The program will be listed on CBF's website as a resource for current students involved in the program but also as a reference point for potential new schools.	2000
Blue Water Baltimore	\$	25,000	Central	Urban Forestry & Workforce Development	The Urban Forestry & Workforce Development project will increase Baltimore's urban tree canopy by 12 acres, engage 750 volunteers, and provide critical job opportunities for the area's most vulnerable populations. The program's goals will be accomplished through the development of local Tree Stewards, technical support from Blue Water Baltimore staff, and a sustained presence for maintenance focused on tree survival. The primary results of this program will be improved water quality through a cost-effective stormwater Best Management Practice, increased resident awareness and leadership, and a new partnership established between the environmental restoration field and professional workforce development organizations.	392
Blue Water Baltimore	\$	4,872	Central	Increasing Urban Tree Canopy	We are seeking additional funding to purchase trees for public park and school property where we have seen a shortfall of funding in both Baltimore City and Baltimore County. Our overall goals are to engage 90 community volunteers to plant a total of 87 trees at 3 sites.	90

Anacostia Watershed Society	\$ 15,500			Building Community through Service with Anacostia High School	The Anacostia Watershed Society will engage 20 Anacostia High School students to improve the water quality and habitat of the Anacostia River through interactive learning opportunities and action projects in their Ward 8 community. We will communicate watershed principles and challenge students to explore why it's important to take care of the land near the river to reduce stormwater runoff and keep the river clean for aquatic life and other animals that depend on the river. Students will take an active role by implementing activities that focus on stormwater management, pollution prevention, and watershed restoration solutions. Through this program, students will earn up to 20 community service hours, helping them to meet graduation requirements.	10
iCARRe Foundation	\$ 4,505	Central	Anne Arundel	iCARRe New Kingdom Faith Green Project	iCARRe Foundation, New Kingdom Faith Christian Church, and St Albans Episcopal Church will partner to educate and inform our youth of the value of the Chesapeake Bay. The kids from iCARRe Mentoring will be supervised by the young adults of New Kingdom Faith as we plant 10 trees and install 5 rain water barrels at St Albans. New Kingdom Faith also will document and promote the project through its graphic artist with a social media campaign.	10
Carnegie Institution for Science, Dept of Embryology	\$ 17,500	Central	Baltimore City	Your Watershed, Your Backyard	BioEYES and partners will offer three annual Meaningful Watershed Educational Experiences to Baltimore 6th and 7th graders. Seven schools in Baltimore City and one Baltimore County school will attend a field trip to: local stream sites in an urban subwatershed, conduct an action project, and release trout in streams. Hands-on class and schoolyard instruction includes nine periods where students learn environmental literacy, stewardship and about careers in the sciences.	100

Canton Canopy	\$	19,138	Central	Baltimore City	Canton Canopy Tree Pit Creation Fall 2018-Spring 2019	Canton Canopy is seeking \$19,138 to reduce the impermeable surface area in the Canton neighborhood of Baltimore City by creating and expanding tree pits and maintaining new trees that are planted. We will create 61 new tree pits and expand 6 existing tree pits, planting trees in the new wells and following a maintenance schedule over the course of one year that will ensure they survive to maturity. This project will both help achieve goals to reduce runoff as outlined by the Harris Creek Small Watershed Action Plan and expand the neighborhood's tree canopy, which currently only measures 5%.	101
Canton Canopy	\$	18,050	Central	Baltimore City	Canton Canopy Tree Pit Creation Fall 2017-Spring 2018	Canton Canopy is seeking \$18,050 to reduce the impermeable surface area in the Canton neighborhood of Baltimore City by creating and expanding tree pits and maintaining new trees that are planted. We will create 49 new tree pits and expand 28 existing tree pits, planting trees in the new wells and following a maintenance schedule over the course of two years that will ensure they survive to maturity. This project will both help achieve goals to reduce runoff as outlined by the Harris Creek Small Watershed Action Plan and expand the neighborhood's tree canopy, which currently only measures 5%.	67
The Church of the Redeemer	\$	74,043	Central	Baltimore City	Parking Lot of the Future	PROJECT DESCRIPTION The Church of the Redeemer proposes to convert our 1.25-acre main parking lot into a showcase of environmental sustainability by installing 4,262 sq. ft. of bioretention practices, 2,415 sq. ft. of pervious paving, and 5,300 native plants, shrubs and trees. The project will include educational signage, environmental lectures and action days for parishioners and the broader community. The outcome of these efforts will be the annual treatment of over one million gallons of stormwater runoff, a significant increase in pollinator and wildlife habitat, and over 2000 individuals with a greater understanding of the need to engage in such work.	39

Brown Memorial Park Avenue Presbyterian Church	\$	2,500	Maryland	Baltimore City		A series of watershed field trips and restoration projects to teach church and underserved community youth about watershed health and the health and environmental benefits of local food production. Trips will be coordinated with the Chesapeake Bay Foundation, the Living Classrooms Foundation, and several urban farms near the church community.	30
Land and Cultural Preservation Fund, Inc	\$	15,273	Capital	Frederick	Amber Meadows Townhouse Association- Riparian Buffer Tree Planting	Amber Meadows THA Stream Buffer Planting project seeks to provide a comprehensive outreach and restoration experience to 1 community in the City of Frederick. The project seeks to increase the knowledge of 156 residents about watershed health through outreach and education, engage the neighbors in a tree planting (400 trees) on the THA's common space (2.75 acres), and increase the buffer and tree canopy size by 57% on a small stream in the Monocacy River watershed. Stream-Link seeks to instill ownership and a sense of pride in caring for the common space, the stream, and their watershed.	400
Howard County Conservancy, Inc.	\$	25,776	Central	Howard	Howard County Conservancy Native Habitat Restoration Project	The Howard County Conservancy's Native Habitat Restoration Project will result in the restoration of 4.5 acres to aid native habitat creation and the protection of the East Branch Stream, part of the Patapsco River Lower North Branch Watershed. Located on the grounds of the Howard County Conservancy, a nonprofit environmental education center, 150 volunteers from the community will be engaged with readying the site and on Earth Day 2019, helping us to clear invasive species, plant native perennial and shrub seeds and 175 native trees. This proposed restoration project will reduce runoff and erosion, increase shade, support native wildlife and restore the native forest layers.	175

University of Maryland	\$	30,000	Central	Howard	HoCoWSA Social Marketing Outreach Plan	Howard County Watershed Stewards Academy (HoCoWSA) has secured cost-share dollars through our partnership with the Columbia Association to generously subsidize rain garden installations in the Village of Harpers Choice, and seeks assistance from the Chesapeake Bay Trust to develop a social marketing/behavior change plan. HoCoWSA and Water Words That Work, LLC will develop the plan together. HoCoWSA will implement the plan. The project will build on formative social marketing research funded by the Chesapeake Bay Trust and an evaluation of suitable residential properties, which was funded by the Middle Patuxent Environmental Foundation Partnership.	150
Pocomoke City	\$	13,500	Eastern Shore	Lower	Conceptual Plan- Pocomoke City Green Street Plan	Pocomoke City is applying for funds to develop a conceptual plan for future projects relating to greening various streets in the city, primarily in the downtown area. The objectives are to find how to reduce impervious surface, improve its street tree planting program, develop bio-swales, and rain gardens, and find other ways to reduce storm water run-off. The plan is to begin with the downtown and move further south in the residential areas in future phases of the project. Thirty street trees will also be planted.	30
Pocomoke Middle School	\$	2,498	Maryland	Lower		Students will be participating in a year long study of the causes, effects and factors involved in changing water quality indicators in the Pocomoke River. Students will be participating in data collection, native garden installation and school-based recycling activities. Students will also be working with rangers at Shad Landing throughout the year to complete various maintenance projects. We are submitting data for the Statewide Watershed Report Card and the Student Summit that will occur at the Maryland Statehouse in May. The culminating activity will be a day long canoe trip on the Pocomoke with educators from the Chesapeake Bay Foundation.	400

Talbot County Public Schools	\$	5,000	Maryland	Middle		Talbot County Public Schools (TCPS), the National Oceanic and Atmospheric Administration (NOAA) and Pickering Creek Audubon Center (PCAC) will partner to deliver lessons detailing the importance of wetlands, human effects on wetlands and how to restore wetlands. After utilizing the stream that runs along the back of Easton Middle School property for data collection the culminating activity for this activity will be a restoration project at PCAC. The objective of this program is to produce environmentally aware members of society, develop a sense of community service in the students and allow for real world, hands on, application of what has been presented to students in the classroom. After the initial classroom lessons the students will collect stream data with NOAA then become involved in all levels of planning and completion of the habitat project.	500
Metropolitan Washington Council of Governments	\$	31,119	Capital	Montgomery	Broadmore Hills Streamside Impervious Surface Removal and Replanting of Native Vegetation	The proposed project is located at 13122-13120 Broadmore Road, 25 Silver Spring, MD 20904. It lies in the Paint Branch watershed, a subwatershed of the Anacostia River. The objective of the project is to remove a 1,476 SF asphalt basketball court that lies adjacent to a stream and replant the area with native trees and shrubs. This project lies between to two other areas where tree planting has already occurred.	
Spencerville Adventist Academy	\$	4,965	Maryland	Montgomery		This project will introduce and reinforce the importance of conserving one of our nation's most important aquatic resource, the Chesapeake Bay; and the importance of maintaining the health of its watershed, which is vitally important to the health of the Bay. The project includes outdoor field experiences for fifth and ninth graders, and a BayScaping project that may be participated in by students from all grades, volunteers, and parents. The school is relatively new, so it needs some flower beds and trees; so the project calls for native perennial gardens and native trees on the school grounds.	20
City of Hyattsville	\$	60,762	Capital	Prince George's	Track 1 & 3 Hyattsville Tree Canopy Program	PROJECT DESCRIPTION Project Description The Hyattsville Tree Canopy Program with Track 1 that strives to increase the urban tree canopy through the existing efforts of Hyattsville environmental stewardship, management and its commitment to the preservation of trees and their contribution towards our community's economy, carbon footprint and the quality of life of our residents. Within Track 3, the City has engaged a consultant to develop a Tree Canopy study which will assist the City with identification of tree replacement. After completion of the study the City will provide education, outreach and mini-grants towards replacing trees and installation to continue the mission by planting new trees to absorb pollutants and releasing oxygen to better the air quality. Providing both tracks within our program will assist Hyattsville's efforts to reinforce our stormwater runoff and erosion, thus improving the Bay's water quality effect on climate change and improve the health of each of our residents.	125

City of Bowie	\$ 10,000	Capital	Prince George's	City of Bowie Private Tree Planting Behavior Change	Bowie residents understand the importance of trees yet do not take advantage of programs that help them plant trees on their properties. This is the pilot phase of a multi-year project attempting to increase private tree planting that addresses the barriers identified in focus groups and a phone survey. The goal is to change residents' attitudes about trees and to see at least 75 trees planted.	75
City of Hyattsville	\$ 20,431	Capital	Prince George's	Water Quality - Melrose Trail Rain Gardens	In 2014 this area was designed as a pedestrian/bike trail providing 24 citizens with access to the greater Anacostia Tributary Trail System. This project consists of the installation of a rain garden, meadow plantings, tree installation and a seating areas. Our objective is to capture storm water run-off from this 8400 square feet area, stabilize the landscape with native species and increase wildlife habitat while providing an inviting space for citizen and an educational area where area local schools can educate students on storm water, its' impact on the environment and ways we can remediate pollutants in our waterways.	
Town of Easton	\$ 8,058	Eastern Shore	Talbot	Town of Easton Street Tree Planting Project	The Town of Easton seeks G3 funding to increase the number of street trees to be planted in FY 2019 by 54 %.	160
Town of Easton	\$ 6,847	Eastern Shore	Talbot	Town of Easton Street Tree Planting Project	The Town of Easton seeks G3 funding to increase the number of trees to be planted in FY18 by 125%.	139
Town of Hancock	\$ 4,679	Western	Washington	'Beautifying Hancock'	The Town of Hancock will be partnering up with various organizations like the Hancock Rotary, Hancock Agricultural Students, Town of Hancock Parks Board, Antietam Conococheague Watershed Alliance (ACWA) and others are in pursuit of tree planting and mulching giving the community an opportunity to be engaged in giving back.	50
Highland View Academy	\$ 4,789	Maryland	Washington		This project will enhance the school's STEM curriculum by giving students outdoor hands-on learning experiences on four field trips with the Chesapeake Bay Foundation. The project also involves getting students involved in BayScaping, by planting native perennials and trees on the campus; doing projects on environmental issues affecting the bay; and sharing their projects with the community.	20

Alliance for the Chesapeake Bay	\$ 104,774	Central	Anne Arundel	Corcoran Woods Restoration Project: Phase II	The 215 acre Corcoran Woods is owned and managed by the State of Maryland and located on the northwest portion of the Sandy Point State Park property. Over the last several decades invasive plants have either replaced or degraded almost half of the property's upland and bottomland hardwood forests and threatens to infiltrate the remaining healthy acreage. The goal of our project is to implement the second phase of the Corcoran Woods project and restore an additional 27.3 acres of forest through invasive plant control and reforestation planting. Approximately 11,875 tree seedling will be planted on the entire 27.3 acres.	11875
Arundel Rivers Federation	\$ 378,487	Central	Anne Arundel	Gravelly - Kings Branch Stream Restoration	PROJECT DESCRIPTION Flat Creek's "Gravelly Grand Canyon" is a rapidly eroding tributary in the South River watershed characterized by incised and unstable channels. Stream banks are 6.9 feet high on average and reach heights of 18 feet in some areas. Restoration work will begin on Gravelly Community Association property and end on the County-owned Kings Branch Natural Area. The 3,432 linear foot project drains 208 acres, of which 17 are impervious. This project will prevent 2,446 pounds of nitrogen, 697 pounds of phosphorus, and 40.5 tons of sediment from entering the South River annually while creating new and enhancing existing habitat.	1621
Scenic Rivers Land Trust, Inc.	\$ 529,796	Central	Anne Arundel	Caldwell's Forest Conservation Project	This conservation project follows Tracts B & C, protecting 80.8 acres (68.8 forested acres, 5 acres to be reforested) in Crownsville with a permanent conservation easement held by Scenic Rivers Land Trust (SRLT). The project carefully protects the forest while allowing for the landowner to build a limited amount of structures within the fields. Three residential development rights would be extinguished. SRLT found this to be an important property to protect because of it's approximately 4,945 linear feet of stream, and being within a MD DNR Targeted Ecological Area, Audubon Important Bird Area, and an Anne Arundel County Greenway segment.	2675
Scenic Rivers Land Trust, Inc.	\$ 591,284	Central	Anne Arundel	Gaug's Forest Conservation Project	This conservation project follows Tracts B & C, protecting 78 acres (73 acres of forest, 5 to be reforested) in Crownsville with a permanent conservation easement held by Scenic Rivers Land Trust (SRLT). The project protects the forest by restricting development and certain activities. SRLT found this to be an excellent property to protect because of high DNR Green Infrastructure Assessment rankings, 2,871 linear feet of stream, reforestation of 5 acres, FIDS habitat including being a part of an MD/DC Audubon Important Bird Area, 5 acres of wetlands, and proximity to protected lands.	1595

Arundel Rivers Federation	\$	35,600	Central	Anne Arundel	Homeport Farm Park Reforestation	The South River Federation is seeking funding to complete prior reforestation efforts at Homeport Farm Park in Edgewater, Anne Arundel County, Maryland. Previous plantings (2005-2007) were not completely successful and invasive species dominate some areas. With grant funding, an Oak-Pine community will be fully established, and a vegetation management plan will be generated to help ensure the health and success of the reforestation efforts.	920
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Arundel Rivers Federation	\$	120,813	Central	Anne Arundel	Anne Arundel County Fairgrounds Invasive Removal & Reforestation	PROJECT DESCRIPTION The Anne Arundel County Fair has partnered with the Arundel Rivers Federation to remove invasive plants on 3.55 acres of forested land throughout the fairgrounds. After removing the invasives from these areas, the sites will be replanted with nearly 900 native trees and shrubs. An additional 0.6 acres of open space will be reforested beyond the original 3.55 acres. This project will engage the Boy Scouts, FFA and 4H Clubs as well as include educational signage that will remain on display for the thousands that visit the fairgrounds each year.	873
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Arundel Rivers Federation	\$	43,198	Central	Anne Arundel	Camp Woodlands (Broad Creek) Stream Restoration	PROJECT DESCRIPTION The Arundel Rivers Federation is partnering with Anne Arundel County's Watershed Protection & Restoration Program (WPRP) to implement a 1,300 linear foot stream restoration project at the Girl Scout's Camp Woodlands in Annapolis. WPRP managed and funded the design and permitting process while the Federation worked to obtain grant funding for construction. Grants from Maryland Department of Natural Resources and the National Fish & Wildlife Federation have already been obtained. This restoration will result in estimated pollutant load reductions of 492 pounds of nitrogen/year, 151 pounds of phosphorus/year, and 136.42 tons of sediment/year while increasing habitat and recreational value of the site.	700
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Scenic Rivers Land Trust, Inc.	\$ 175,296	Central	Anne Arundel	Forest Glen Conservation Project	Jimmie and Stacey Wolfe love the woods that are behind their property. They are very interested in buying the land from Belle Grove Corporation, a real estate development company, in order to permanently protect this high-quality forest from ever being developed or commercially logged. The Belle Grove Corporation is interested in this transaction but requires higher compensation for the property than the Wolfes can afford. This is where this grant comes in – to aid in permanently protecting a 27-acre high-quality forest within the Critical Area and put the forest into the hands of two people passionate about the health of the woods, as well as assist them with controlling 1.5 acres of invasive species and planting 525 trees and shrubs.	525
Chesapeake Rivers Association, Inc.	\$ 161,544	Central	Anne Arundel	Circle Drive Outfall Restoration in Winchester on the Severn	PROJECT DESCRIPTION The project will reduce storm flow and pollutants entering Chase Creek on the north shore of the Severn. The original Winchester 2017 RSC addressed an eroding gully in the main Winchester Ravine. Upon completion, the lower weirs and pools became overwhelmed by a new source of sediment from an adjoining ravine. The source was a newly replaced County stormwater outfall pipe on Circle Drive. Re-energized stormwater flow from the pipe has dramatically eroded the ravine, dumping sediment onto private property and community land and the original RSC below. Circle Drive RSC will correct this and stabilize the original Winchester RSC.	474
Fishing Creek Farm HOA	\$ 97,229	Central	Anne Arundel	Fishing Creek Farm HOA Healthy Forests Healthy Waters Initiative	PROJECT DESCRIPTION The Fishing Creek Farm HOA will work with a restoration professional to restore eight acres of degraded forests through invasive species removal and tree planting. The plan will follow the recommendations of our state-approved Forest Stewardship Plan. The proposed work is part of a broader effort of the HOA to sustain is natural resources including forests and shorelines.	400

Arundel Rivers Federation	\$ 198,950	Central	Anne Arundel	Killarney House & Neighbors Beards Creek Community BMPs	The Killarney House & Neighbors Community BMP project, located in the Beards Creek subwatershed of the South River, will address polluted stormwater runoff traveling across five commercial and residential properties. Created forested wetlands, bioretention swales, and a reforestation buffer will be installed as part of the series. This project will assist in the conversion of stormwater to groundwater, stripping runoff of its erosive energy as well as nutrients and sediment.	315
Arundel Rivers Federation	\$ 349,312	Central	Anne Arundel	Beards Creek Stormwater Outfall Retrofit and Stream Restoration	The Arundel Rivers Federation and Watershed Protection and Restoration (WPRP) are partnering to implement a 2,118 linear foot stream restoration project in the Beards Creek sub-watershed of the South River. WPRP funded and managed the design and permitting process while the Federation is working to secure implementation funding. This project will prevent 760 pounds of nitrogen, 124 pounds of phosphorus, and 9.3 tons of sediment pollution from entering Beards Creek annually through the installation of engineered wood structures that aim to reconnect the floodplain.	300
Chesapeake Rivers Association, Inc.	\$ 242,567	Central	Anne Arundel	St. Dixon Farm Restoration	The project is located on an operating sod farm that is located in the Whitehall peninsula between Mill Creek and Whitehall Creek in the Severn River Watershed. The Farm is located within Anne Arundel County, south of the intersection of U.S. Route 50 and Maryland Route 179, known as St. Margaret's Road, along Pleasant Plains Rd. The proposed project is correcting a drainage problem on the sod fields, which allows ponded stormwater to flow directly into two creeks, which feed Ridout Creek. The project will create a flow path extending 620 linear feet. This flow path will direct surface runoff from the sod farm through a series of sand-bedded pools and riffles that provide water quality treatment upstream before entering the sediment pond. A second flow path of pools and riffles will provide additional water quality treatment along 175 linear feet from the pond to the stream. These new flow paths will slow stormwater flows which in turn reduce surface erosion, allow sediments to settle out, increase water storage, and improve water quality. Subsurface water storage and infiltration will provide additional water quality improvements and create habitat.	273

Arundel Rivers Federation	\$ 192,940	Central	Anne Arundel	Herrington Harbour North Headcut Stabilization, Wetland Enhancement, & Living Shoreline	<p>PROJECT DESCRIPTION</p> <p>The Herrington Harbour North headcut stabilization, wetland enhancement, and living shoreline project will restore a rapidly eroding headcut in an area of the County that has seen little restoration work and increasing development. With full landowner support in a high-profile recreational location, this is an excellent opportunity to showcase restoration and stormwater management. The project drains 28 acres, of which over 32% is impervious. The project will prevent 66.9 pounds of nitrogen, 21.1 pounds of phosphorus, and 3.8 tons of sediment from entering Tracys Creek annually while creating new and enhancing existing habitat.</p>	245
Annapolis Roads Property Owners Association, Inc.	\$ 26,504	Central	Anne Arundel	Invasive Control and Reforestation of the ARPOA Mayapple Wood	<p>Annapolis Roads Property Owners Association (ARPOA) has embraced an effort to remove English ivy and other invasive plants from trees throughout the community. This grant will allow ARPOA to remove Ailanthus, English Ivy and other invasive plants from the 1.5 acre Mayapple Wood (MAW) at our Community Park and Beach. Then we will plant replacement native trees, shrubs, ferns, and herbaceous perennials. ARPOA hired goats to remove invasives from MAW in 2014. Residents were in awe when they saw the treasure revealed. We hope to inspire residents to care for trees on private as well as community property.</p>	238
Arundel Rivers Federation	\$ 164,010	Central	Anne Arundel	TriState Marine Stormwater Retrofit System	<p>The South River Federation is partnering with Tri State Marine (TSM) to install a "shovel ready" stormwater retrofit project located in Herring Bay watershed, a medium to high priority watershed under the County's WIP providing an annual TSS load reduction of 85% over existing conditions at a cost of \$20,608 /acre of impervious, if funded at the requested amount. If the grant is awarded, this SWM project will retrofit only existing untreated SW. The project includes the construction of BMPs consisting of a stormwater management wet pond, two bio-swales and a grass swale.</p>	500

Arundel Rivers Federation	\$ 100,000	Central	Anne Arundel	Broad Creek - Health Department Stream Restoration	The Broad Creek Department of Health restoration project will restore stability and functions to a 1000 foot ephemeral stormwater driven gully. The channel is highly unstable, leading to excessive delivery of sediment downstream. Stabilizing the gully and improving upslope stormwater management retrofits will stop a significant source of sediment and nonpoint source pollution from going into Broad Creek. The 2008 South River Watershed Assessment ranked Broad Creek as the second highest contributor of sediment and nutrient loads to the South River. The County's WIP listed restoration of incised streams, like this project, using SPSC as their "Core Tier 1" strategy.	200
South River Landing Condominium, Inc.	\$ 64,164	Central	Anne Arundel	South River Landing Reforestation Project - Track A	South River Landing (SRL), is a non-profit Corporation located on the South River and Almshouse Creek. All SRL is in the Critical Area and some of the work is in the Critical Area Buffer. SRL is requesting a \$72,671 grant to remove invasive plants, remove dead or dying trees and shrubs and plant 29 perennials, 223 shrubs and 126 trees, all native to the area. This work will improve and expand the forest canopy as well as slow down and divert storm water flow to allow it to infiltrate into the ground prior to flowing into the South River.	126
Arundel Rivers Federation	\$ 370,746	Central	Anne Arundel	Broad Creek - Health Department Gully Restoration Phase II	The Broad Creek – Department of Health stream restoration Phase II will restore a 750 linear foot stormwater driven gully that flows into Broad Creek. The channel is highly unstable, leading to excessive delivery of sediment downstream during even minor storm events. By stabilizing the gully and constructing additional upslope stormwater infiltration and detention devices in the parking lot, the Federation will stop a significant source of sediment and nonpoint source pollution from going into Broad Creek. The 2008 South River Watershed Assessment ranked Broad Creek as the second highest contributor of sediment and nutrient loads to the South River.	143

Arundel Rivers Federation	\$	13,722	Central	Anne Arundel	Historic London Town and Gardens Reforestation	The South River Federation is seeking funding to reforest and/or enhance three areas at Historic London Town and Gardens in Edgewater, Anne Arundel County, Maryland. This project will bring in 150 new, native trees and shrubs in addition to managing and area currently overrun with invasive plants. With grant funding, a more diverse plant community will be fully established and a vegetation management plan will be generated to help ensure the health and success of the reforestation efforts. Track A application.	124
Bay Ridge Civic Association	\$	21,503	Central	Anne Arundel	Bay Ridge Civic Association Reforestation Project 2018	PROJECT DESCRIPTION The BRCA is requesting a grant to fund the site preparation and reforestation of 37 acres in a conservation easement within Bay Ridge. The area is bordered on the south by Farragut Rd, the west by Annapolis Cove, and the north and east by West Lake Road. This project will require a certified arborist to remove dead trees, stands of invasive bamboo, paper mulberry, and other invasive weeds. Bay Ridge community members will plant 100 native species trees, put up protectors, and stakes. We intend to create a tree canopy.	102
Magothy Meadows Homeowners' Association	\$	2,500	Central	Anne Arundel	Magothy Meadows Tree Improvement/Expansion	PROJECT DESCRIPTION The tree buffer between the Community and College Pkwy has weakened in recent years. The HOA hired an arborist (Holly Oak Consulting LLC) to analyze (full report available upon request). This project will expand and enhance this area to improve privacy and provide some offset from tree removal that occurred for the Broadneck Trail. It includes both HOA property and County ROW (DNR approval for ROW pending). Project will follow species and planting guidelines specified in the arborist's report. Total project will entail approx. 150 shrubs/trees. Partnerships with Broadneck Environmental Literacy program and Watershed Stewards Academy are in development.	100

Arundel Rivers Federation	\$	2,291	Central	Anne Arundel	Preserve at Broad Creek Tree Planting	The South River Federation is seeking a \$2,291 tree planting grant for the Preserve at Broad Creek restoration project as part of a multi-phase tree planting project to engage the community in a hands-on project. The primary objective of the project was to turn a failing stormwater pond and the resulting eroding gully into a functioning stormwater wetland and step pool system to enhance the surrounding forested wetland, stream habitat, and riparian buffer. Another goal was to create a project that can be used to meet water quality goals and enhance habitat within the developed landscape.	75
Carroll's Creek Community	\$	2,500	Central	Anne Arundel	Tree beautification	The left side of the community has a Reforestation area which is filling in but beyond it continuing around and behind the next building there is hillside which needs landscaping attention. This is the area where the main emphasis of the project will be directed. We will install native tree saplings on a bare embankment, where turf is having a hard time becoming established. We will also install Vinca Minor to serve as a ground cover. Both of these will help prevent erosion issues, and will beautify the embankment.	75
Woods Memorial Presbyterian Church	\$	2,500	Central	Anne Arundel	Woods Church Woodlot Restoration and Improvement Project	The Woods' woodlot is a .61 acre parcel bounded by the Sunrise Assisted Living parking lot, Severna Park Library sidewalk and a sidewalk along Hilltop Drive. It is sparsely wooded. Its current use is to absorb storm water currently flowing from both the Church parking lot and the downspouts carrying rainwater from the eastern half of the Church building. 176 trees, shrubs, and plants will be planted in the tract in mid-April to beautify the tract, improve its ability to absorb and transpire water, and create additional habitat for pollinators, wildlife, and birds.	161
Tidewater Colony Open Space Association	\$	35,250	Central	Anne Arundel	Tidewater Colony Open Space Landscape Improvements	PROJECT DESCRIPTION The project consists of removing invasive vines and plants from the conservation easement areas that border on our Tidewater Colony Open Space Association property. Once the invasive plants are removed, we will be assessing the area for replanting native trees and plants to enhance our forest and protect the land.	50

Arundel Rivers Federation	\$ 364,225	Central	Anne Arundel	Broad Creek Park Stream Restoration (Phase III)	<p>PROJECT DESCRIPTION</p> <p>This project will restore approximately 3,760 linear feet of actively eroding stream as well as provide opportunities to enhance forested riparian buffer in Broad Creek Park in Anne Arundel County. The project approach is to install rock riffle weir structures in the existing channel with each structure spaced at approximate 6-inch increments of elevation. This approach will restore the incised stream by raising the groundwater, allowing flows to frequently access the floodplain rather than eroding the channel. The outcome will be reduced nutrient and sediment pollution to the South River, restored hydrology, and enhanced habitat along this forested stream corridor.</p>	50
Tidewater Colony Open Space Association	\$ 2,500	Central	Anne Arundel	Tidewater Colony Open Space Landscape Improvements	<p>PROJECT DESCRIPTION</p> <p>The project consists of removing invasive vines and plants from the conservation easement areas that border on our Tidewater Colony Open Space Association property. Once the invasive plants are removed, we will be assessing the area for replanting native trees and plants to enhance our forestry and protect the land.</p>	50
Severn School, Inc.	\$ 34,592	Central	Anne Arundel	Severn School, Stine Outdoor Education Center Reforestation Project	<p>The proposed project is a 1/2 acre reforestation project building on previous efforts by Severn School on their Severna Park campus. After decades without management, Severn took the first step by removing invasive species from the site, however the resulting forest floor lacks essential understory layers.</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Establish next generation canopy trees by strategically planting native trees - Reduce polluted runoff, improve soil and air quality, and enhance habitat by establishing a healthy understory of native vegetation - Educate the School community about the benefits of healthy forests by engaging them in developing, implementing, and managing a productive woodland 	78

Arundel Rivers Federation	\$	47,331	Central	Anne Arundel	Beechnut Kennels Bioretention Project	PROJECT DESCRIPTION PROJECT DESCRIPTION The Arundel Rivers Federation is requesting a \$47,331 grant to provide water quality treatment of stormwater runoff from a dog kennel facility's outdoor kennel area and impervious areas. This project will treat stormwater from 2.58 acres in two outputs: a forebay and a bioretention resulting in cleaner, cooler water that has been filtered through bioretention cells and native plants. The public, high-traffic location of this demonstration project will ensure that it serves as an example for other small businesses on how to reduce impact on their local watershed. Beechnut Kennels is contributing \$4,000 towards the project should grant funds be awarded.	44
Arundel Rivers Federation	\$	41,770	Central	Anne Arundel	CAT South Swale Retrofit Restoration Project	South River Federation is seeking funding to assist construct a stormwater bioretention cell on the campus of the Center of Applied Technology -- South (CAT-South), a magnet program of Anne Arundel County Public Schools (AACPS) located in Edgewater, Maryland. This project will address flooding issues experienced outside one of the school's workshops and help treat stormwater from 1.84 acres before it flows into Glebe Bay.	32
Bay Ridge Civic Association	\$	1,779	Central	Anne Arundel	Bay Ridge Civic Association Forest Restoration 2015	The Bay Ridge Civic Association is requesting a grant to pay for the planting of 30 5'-6' foot native trees. The land in a conservation easement which is overseen by the Scenic Land Trust. The BRCA manages this land under the guidelines of the Md DNR and the guidance of the SLT. We need to reforest this area and create a canopy which will encourage wildlife habitat and discourage the growth of invasive vines.	30
Anne Arundel Watershed Stewards Academy	\$	40,000	Central	Anne Arundel	Clean Water Communities	The Clean Water Communities neighborhood certification connects homeowners with the tools to reduce stormwater pollution and improve the health of our waterways. By changing old habits and installing new landscape features, communities reduced pollution and earned a designation as a Clean Water Community. This proposal will train both Master Watershed Stewards and Community Stewards in two communities and test and implement a program to engage two communities in residential restoration (40 practices), and adopting behaviors that will reduce pollution (approximately 60-80 households total).	45

Annapolis Landing Homeowners Association	\$ 2,500	Central	Anne Arundel	Annapolis Landing Roadside Tree Replacement Plan	<p>PROJECT DESCRIPTION</p> <p>The Annapolis Landing Homeowners Association (ALHA) is requesting a grant to replace roadside trees that were removed by the county in the last two years. The ALHA has a landscaping contractor as a homeowner in our community who is willing to replace the removed trees and can purchase Red Maples at bulk for a discounted cost. The ALHA would like to replace 12-30 trees from September 2nd, 2019 through April 30, 2020 and has already submitted a permit to the Maryland Department of Natural Resources to plant the trees.</p>	25
Chesapeake Rivers Association, Inc.	\$ 102,390	Central	Anne Arundel	Coventry Court Dry Channel RSC-Category 2	<p>The proposed 120 If Dry Channel RSC is in response to a failed stormwater outfall. Located behind 1682 Coventry Court, it is a modified bubbler structure with boulder stabilization that was installed thirteen years ago during the Howard's Branch RSC stream and wetland restoration. Recent erosion has created an unsafe condition, with collapsed boulder structure and certain sediment deposition into the Howard's Branch watershed. Unlike the original design that was intended only to stabilize the maintenance haulroad, the new Dry Channel RSC will add significant treatment to this tributary drainage area, thereby enhancing the sand seepage and AWC wetland below.</p>	23
Chesapeake Rivers Association, Inc.	\$ 299,953	Central	Anne Arundel	Winchester on the Severn Dry Channel RSC	<p>Project purpose is to reduce storm flow volume and pollutants entering Chase Creek on the north shore of the Severn in Winchester on Severn. An eroding gully extends below the community rain garden on Winchester Rd for approximately 300 feet until it reconnects to the natural drainage course. The proposed Dry Channel RSC will stabilize the eroding gully by utilizing nine riffle grade controls, pools, and four boulder cascades and plants to handle stormwater prior to its entering the wetlands and Chase Creek below. It is estimated that it will treat 93% of the impervious surfaces within its drainage area.</p>	202

Arundel Rivers Federation	\$	30,000	Central	Anne Arundel	United Church of Christ Bioretention Swale and Pond Retrofit: Category 1	The South River Federation is requesting a \$57,020 grant to provide water quality treatment of stormwater running off a church building, parking lot, street, and other impervious areas surrounding the United Church of Christ. This project will convert a grass swale into a bioswale and retrofit a pond installed back in 1997 to treat runoff from 1.17 acres. This property drains to Church Creek, the most impaired creek in the South River, and a targeted priority area for the South River Federation's restoration efforts.	21
Arundel Rivers Federation	\$	1,456	Central	Anne Arundel	West Shoreham Community Planting	PROJECT DESCRIPTION The goal of this project is to help stabilize a shoreline and soak up stormwater on community property owned by the West Shoreham Community Association. The community is concerned with increasing erosion along their shoreline and would like to stabilize it with a Bay-friendly practice. This planting includes 17 shrubs, 4 trees, and a marsh planting.	21
Hillsmere Shores Improvement Association	\$	2,500	Central	Anne Arundel	Hillsmere Shores Buffer Planting	PROJECT DESCRIPTION The Hillsmere Shores Improvement Association is seeking a grant to plant trees at five locations in the community. The goals of this project are to increase tree diversity and canopy coverage, and provide buffers for the multiple stormwater BMPs that have been installed around the community.	20

Gravely Property Owners Association	\$ 2,500	Central	Anne Arundel	Maintain the Momentum - 2017 Gravely Invasives Control and Reforestation Continuation	This project is a continuation of a long standing effort to plant trees and improve woodland health in Gravely community's 29.2 acres of open space areas. This project will use volunteers for planting and professional assistance in continuation of invasive control prior to planting. This project is the 4th phase of the implementation of our Gravely Forestry Stewardship Plan created in 2013 and part of a larger coordinated effort.	29
Arundel Rivers Federation	\$ 50,000	Central	Anne Arundel	Holly Hill Harbor Restoration Project	South River Federation (SRF) is seeking funding to implement two series of in-line constructed wetlands on Holly Hill Harbor community property to treat stormwater runoff from 8.45 acres in the Rhode River. Around 500 square feet of pavement will be removed as part of the project. This project was started by the West/Rhode Riverkeeper, received a Watershed Assistance Grant for design, and will be constructed by the South River Federation.	20
Anne Arundel County Watershed Protection and Restoration Program (WPRP)	\$ 25,000	Central	Anne Arundel	Thomas Point Living Shoreline and Outreach	Anne Arundel County will create 300 linear feet of living shoreline and create 0.315 acres of saltmarsh at Thomas Point Park in Annapolis. The living shoreline will improve habitat and water quality while protecting a rapidly eroding 5.5 foot tall bank that is damaging the park's main roadway. As part of the project, educational events will be held at the park and informational signs will be installed in both english and spanish that discuss the importance of wetlands in providing habitat and improving water quality. The signs will target local Hispanic and African American fishermen who frequently use the park.	20

Annapolis Roads Property Owners Association (ARPOA)	\$	38,358	Central	Anne Arundel	Category 2 Project: Mayapple Watershed Remediation	<p>PROJECT DESCRIPTION</p> <p>The community of Annapolis Roads enjoys a beach and associated park area overlooking the mouth of the Severn River. A gravel parking lot in the adjacent wooded area associated with these popular amenities has stormwater runoff problems. The parking lot, located in a shallow valley, concentrates stormwater flowing into it and funnels the stormwater into the adjacent forest, where it gouges erosion channels, damaging this natural area. This watershed restoration project is intended to control runoff entering and exiting the parking area by removing 40% of the existing impervious parking surface and by the installation of infiltration berms. The infiltration berms and previously impervious area will be planted with site-appropriate native vegetation.</p>	17
Gravelly Property Owners Association	\$	2,500	Central	Anne Arundel	Gravelly Property Owners Association Invasives Removal and Reforestation Project	<p>This is a community tree planting and invasives species removal project on community property. Gravelly community includes 29.2 acres of open space composed of turf and woodland areas, many of which are infested with invasives that are threatening the health of the trees. Gravelly is located at the headwaters of Flat Creek and woodland health is vital to help prevent erosion and runoff. In 2013, the Gravelly Property Owners Association (GPOA) board of directors enlisted B.J. Forestry Services to develop a Forestry Stewardship Plan. This project would fund action items recommended in the Forestry Stewardship Plan.</p>	22
Paradise Orchard Community	\$	2,500	Central	Anne Arundel	Paradise Orchard Recreational Open Space	<p>The Paradise Orchard Open Space Project in Odenton will enhance the beauty of the community while supporting the Anne Arundel County Chesapeake Bay Restoration efforts. The project will include all native plantings and turf establishment to provide a neighborhood retreat for people and animals to enjoy. The project has leveraged the resources of the residents, volunteer experts and supportive small businesses to comprehensively improve this open space area.</p>	15

Riverbea	\$	9,105	Central	Anne Arundel	Riviera Beach Improvements	This project will demonstrate the ability to take a overgrown, uncared for lot and turn it into a beautiful and ecologically friendly environment. This area is not only at an entrance to the community but is on the watershed at Stoney creek. There is a lot of trash, invasive plants, weeds and a drainage gully that runs through here. I hope to have all this cleaned up and replaced with grass seed and plant some native trees.	12
Arundel Rivers Federation	\$	15,000	Central	Anne Arundel	St. Anne's School of Annapolis Rain Garden	The St. Anne's School Bioretention project will provide treatment of stormwater runoff from the school's roof by infiltrating stormwater volumes instead of transporting them directly into a swale in the Chesapeake Bay Critical Area. Stormwater volumes, in addition to nutrient and sediment loads, from a 0.63 acre drainage area will be reduced by bioretention cells located immediately downhill of the school's main building. The high profile of the project's location, along with the school's commitment to a strong environmental education, will ensure that this project serves an important educational role about the value of these systems in a campus context.	12
Berrywood Community Association, Inc.	\$	2,500	Central	Anne Arundel	Berrywood Cattail Creek Watershed Reforestation	The Berrywood Community is working in partnership with Marion Clement, Natural Resource Biologist, of the DNR to restore the headwaters of the Cattail Creek watershed area in the community. The DNR recommended expeditiously removing the invasive vegetation in the watershed area to enable the current native vegetation to thrive, and to plant additional native species vegetation suited to the environment. Berrywood is submitting this grant application to perform this task. The site was visited by Bud Reeves and Nathan Markline of AA Forestry on March 03, 2016, and we recently received approval of a Standard Vegetation Management Plan (VMP).	12

Gravely Property Owners Association	\$	2,500	Central	Anne Arundel	Gravely Woodlands Invasive Control and Tree Planting Project	This project is a continuation of a long standing effort to plant trees and improve woodland health in the Gravely community where the community owns 29.2 acres of open space, mostly woods. It will be a volunteer-based tree planting project, using volunteers for planting and professional assistance in invasive mitigation prior to planting. This project is the third phase of the implementation of our Gravely Forestry Stewardship Plan, created in 2013 and part of a larger coordinated funding effort.	30
Gingerville Community Association	\$	2,500	Central	Anne Arundel	Gingerville Conservation Landscape	This is a conservation landscape project to take a common area in the community that is currently half forested but overgrown with invasives and half grassed and replant the grass with natives and remove and treat the invasive area and allow regeneration of the existing native forestry.	11
Boy Scouts of America Troop 412	\$	2,300	Central	Anne Arundel	Fort Smallwood Preservation Eagle Scout Project - Matt Hartman	Based upon researched best management practices (BMP's) the project will involve the installation of a riparian buffer as an area of permanent vegetation at Fort Smallwood Park along the Rock Creek shoreline. The buffer zone will consist of plantings to include native shrubs, and trees. Riparian forest buffers are crucial to the retention of eroding shorelines, the protection and enhancement of the water resources of the Patapsco River and tributaries of the Chesapeake Bay.	15

Arundel Rivers Federation	\$ 86,665	Central	Anne Arundel	Turnbull Estates Innovative Bioretention, Oyster Restoration, & Living Shoreline Project: Category 2	PROJECT DESCRIPTION South River Federation seeks an \$86,665 grant to couple a bioretention project with an innovative living shoreline restoration approach utilizing the native oyster. Funding will be used to implement this new approach with two major outcomes. First: prevent further erosion of the native beach and marsh, and to allow accretion to create additional habitat with a structural shellfish component. Second: use the roadside ditch to infiltrate and process more nutrients than the current "transport" configuration. Both the stormwater and shoreline components of this project will reduce sediment flowing into Glebe Creek, the home of the River's only designated oyster sanctuary.	138
Arundel Rivers Federation	\$ 169,900	Central	Anne Arundel	Bacon Ridge Groundwater Recharge Micro-BMP and Outfall Restoration: Category 2	The " Groundwater Recharge Wetland" is a joint pilot project between the South River Federation and US Fish and Wildlife Service. The grant request for this project is \$169,900. The BMP will combine traditional bioretention on erodible/high infiltration soils with intentional shallow groundwater recharge in a two-phase BMP. We believe this BMP will have high utility for retrofits in built-out watersheds or no-till agricultural fields (areas with limited sediment supply). Previous attempts by partners to stabilize two outfalls with innovative organic, non-structural techniques failed. This application proposes to restore those outfalls with established restoration techniques.	142
Anne Arundel Watershed Stewards Academy	\$ 355,549	Central	Anne Arundel	Berrywood Community Caittail Creek Restoration	PROJECT DESCRIPTION PROJECT DESCRIPTION The Berrywood Community Association (BCA) is a homeowners association located in Severna Park. The BCA's property is transected by a section of Cattail Creek, a principal tributary of the Magothy River. BCA is partnering with the Watershed Stewards Academy and Maryland DNR to restore the stream and introduce stormwater BMPs to address erosion issues and to improve the water quality of Cattail Creek. Additionally, this project will provide vital habitat by removing a traditional bulkhead, in the community marina, with a living shoreline.	174

Old Mill Middle South	\$	1,450	Maryland	Anne Arundel	Students will be immersed in a field experience on the Chesapeake Bay. They will experience natural surroundings and learn about the flora and fauna native to the Bay. Students will get a hands on experience by using water quality testing technology and surveying live organisms. Students will also study the ecology of the schoolyard and develop solutions to mitigate their ecological impact. They will evaluate and implement at least one project to improve the school's campus.	75
Summit School, Anne Arundel County	\$	3,590	Maryland	Anne Arundel	PROJECT DESCRIPTION Middle school students from The Summit School will engage in STEM activities at Roedown Farms in Davidsonville, Maryland to explore the impact of the current animal population on soil macro nutrients, resulting water runoff and the impact of erosion. This activity will help students identify issues at the farm that may relate to more general conditions for the surrounding areas where they live, including water quality issues.	18
Summit School, Anne Arundel County	\$	4,240	Maryland	Anne Arundel	PROJECT DESCRIPTION Middle school students from The Summit School will engage in STEM activities at Roedown Farms in Davidsonville, Maryland to explore the impact of the current animal population on soil macro nutrients, resulting water runoff and the impact of erosion. This activity will help students identify issues at the farm that may relate to more general conditions for the surrounding areas where they live, including water quality issues.	15
Summit School, Anne Arundel County	\$	2,485	Maryland	Anne Arundel	Middle school students from The Summit School will engage in STEM activities at Roedown Farms in Davidsonville, Maryland to explore the impact of the current animal population on soil macro nutrients, resulting water runoff and the impact of erosion. This activity will help students identify issues at the farm that may relate to more general conditions for the surrounding areas where they live, including water quality issues.	15

Cylburn Arboretum Association	\$ 61,650	Central	Baltimore City	Construction of storm water facilities and outreach education program at Cylburn Arboretum	<p>PROJECT DESCRIPTION</p> <p>This project at Cylburn Arboretum, Baltimore City, has three components: (1) collection, direction and treatment of storm water discharged from the roof of the Cylburn Mansion into new rain gardens; (2) treatment of storm water in an adjacent wooded area known as Moudry Woods, where new berms will slow the storm water and improve the infiltration capacity of the soils, reducing erosion and run-off; and (3) outreach and education to inform people attending three workshop programs about how to identify storm water issues and develop "best practices" to manage it on their own properties, reducing runoff and erosion.</p>	14
Baltimore Museum of Art	\$ 4,984	Central	Baltimore City	Gertrude's Garden	<p>PROJECT DESCRIPTION</p> <p>The goal of this project is to transform an eroding, barren slope behind Gertrude's Restaurant and create a beautiful oasis of plants, art and wildlife. It will be a visually engaging, educational, tiered landscape that stops erosion, reduces runoff, creates natural habitat, and produces quality, locally- sourced food for the restaurant. The site is on Baltimore Museum of Art's (BMA) and Johns Hopkins Homewood campus in a location that is passed by hundreds of students and city residents every day.</p>	12
Baltimore Lab School	\$ 5,000	Maryland	Baltimore City		<p>Baltimore Lab School Watershed Stewards is a program which combines education about the Bay and student-initiated action projects. Trips outside takes place in the fall through meaningful watershed experiences for all grade levels and action projects take place in the spring.</p> <p>The overarching goal is to give students a meaningful watershed experience, motivating them to both learn and care about, which in turn will help them develop action projects that are bay-specific projects. Because the Watershed Stewards program is interlaced into different subjects, projects would meet curriculum goals of the specific academic subject area and include student-developed watershed action projects.</p>	50

Gunpowder Valley Conservancy	\$ 73,964	Central	Baltimore County	Maryland State Game and Fish Protective Association Bay-Wise Project	The Gunpowder Valley Conservancy (GVC), the Maryland State Game and Fish Protective Association (MSGFPA), and the University of Maryland Extension Master Gardeners of Baltimore County will conduct an outreach campaign and implement Bay-Wise landscaping practices at MSGFPA's 25-acre site located at 8735 Honeygo Blvd, Perry Hall, Maryland. The target audience will be MSGFPA's participants, with a focus on members, Scouts and Archers. The outcome will be the installation 2 micro-bioretenion systems, 1 rain garden, 1 Bayscape, 10 rain barrels, and 200 infill trees. 138 project participants will take a restoration action and 20 will implement Bay-Wise practices at their homes.	200
Gunpowder Valley Conservancy	\$ 30,000	Central	Baltimore County	Baltimore County Game & Fish Protective Association Bay-Wise Project	The Gunpowder Valley Conservancy (GVC), the Baltimore County Game and Fish Protective Association (BCGFPA), and the University of Maryland Extension Master Gardeners of Baltimore County will conduct an outreach campaign and implement Bay-Wise landscaping practices at BCGFPA's 43-acre site in Parkville, Maryland. The target audience will be BCGFPA's members, Scouts and other groups that use the site, and residents of local neighborhoods. The outcome will be the installation 2 micro-bioretenion practices, 2 rain gardens, 1 Bayscape, 4 rain barrels, and 187 infill trees. 260 project participants will take a restoration action and 11 will implement Bay-Wise practices at their homes.	187
Prettyboy Watershed Alliance, Inc.	\$ 3,150	Central	Baltimore County	Rockland Road Planting by the Prettyboy Watershed Alliance	Working with 20-30 volunteers, the Prettyboy Watershed Alliance (PWA) will plant native hardwoods on 1.5 acres of Baltimore City property surrounding the Prettyboy reservoir. Located along Rockland Road on the north side of the reservoir, the planting will add to Baltimore City's forest buffer that protects reservoir water quality and supplies drinking water to 1.6+ million Marylanders. We will protect each tree with a 5' woven poly deer shelter. The trees will be maintained by PWA with the assistance of Baltimore City's maintenance department who will provide mowing services.	150

Gunpowder Valley Conservancy	\$ 75,000	Central	Baltimore County	Miramar Landing Community Bay-Wise Project	The Gunpowder Valley Conservancy (GVC), the Miramar Landing Homeowners Association (HOA), and the University of Maryland Extension Master Gardeners of Baltimore County will conduct an outreach campaign and implement Bay-Wise landscaping practices at Miramar Landing, a townhome community in Middle River, Maryland. The outcome will be the installation 4 micro-bioretenion systems, 9 Bayscapes, 136 trees planted on 1.24 acres, and 10 rain barrels. In addition, we will certify the community common land and 6 residential yards Bay-Wise and teach homeowners how to plant "Tiny Bayscapes" in small townhome yards.	137
Towson University	\$ 23,054	Central	Baltimore County	Glen Arboretum Restoration at Towson University – Track 3	The goal of this proposed project is to further the mission of the Glen Arboretum on the Towson University Campus, which includes establishing and maintaining specimens of plants, and providing educational experiences for students and the surrounding community. Funding from the Chesapeake Bay Trust will help us achieve these goals by involving students in invasive removal and native tree and understory planting events, providing tables and benches for students, faculty and the community to passively enjoy the Glen, and by allowing us to increase educational signage and tree labels within the Arboretum. Improvements in the Glen will also contribute to the health of the encompassing Jones Falls Watershed through reduced coverage of invasive species, increased cover of native species, particularly groundcover, and decreased erosion of unstable banks and contribution of sediment to Towson Run.	60
Christian Temple	\$ 25,000	Central	Baltimore County	Christian Temple's Water Quality Restoration and Habitat Enhancement Project	Christian Temple in Catonsville, MD, located in the Patapsco River watershed, will implement four best management practices on seven sites. Stormwater runoff and erosion will be treated with one rain garden, a tree canopy extension, two areas of rainwater harvesting, and three conservation landscape areas, while also providing reductions in nutrients and sediment. The rain garden, tree canopy and conservation landscapes will utilize native plants to enhance habitat value. Planting of these practices will provide opportunities for hands-on education to our congregation, building and property users; and serve as a model for other Catonsville religious institutions.	18

Catonsville Presbyterian Church	\$ 2,900	Central	Baltimore County	Woodlands Improvement and Development, Year 2	The Creation Care Team, Catonsville Presbyterian Church, began to restore approximately one acre of wooded property in the Spring of 2017. Although projects completed in the first year had a significant impact, there is still a need to continue the restoration process. Year 2 projects: a.) control remaining/returning invasive, non-native species, undergrowth, and vines impeding growth of a variety of native trees; b.) develop additional mulched paths; c.) remove litter/trash; d.) plant additional native plants, shrubs, and trees; and, e.) extend the demonstration meadow habitat adjacent to the woodlands.	11
Gunpowder Valley Conservancy	\$ 75,000	Central	Baltimore County	Our Lady of Mount Carmel Bay-Wise Project	PROJECT DESCRIPTION The Gunpowder Valley Conservancy (GVC), Our Lady of Mount Carmel (OLMC) church and school, Interfaith Partners for the Chesapeake (IPC), and the University of Maryland Extension Master Gardeners of Baltimore County will conduct an education campaign and implement Bay-Wise landscaping practices at OLMC's 8.5-acre site in Essex, Maryland. The output will be 12 educational workshops/events, the mobilization of 143 volunteers to take a restoration action, and the installation of 3 micro-bioretenion practices, 1 rain garden, 1 Bayscape, 4 rain barrels, and 10 landscape trees at the OLMC site. The outcome will be the reduction of stormwater and pollutants entering local streams and the Chesapeake Bay because the new BMP's will absorb and filter the stormwater.	10
Catonsville Presbyterian Church	\$ 4,975	Central	Baltimore County	Woodlands Improvement and Development, CPC-IPC Partnership	This is a cooperative, neighborhood project headed by the Creation Care Team, Catonsville Presbyterian Church in cooperation with the Interfaith Partners for the Chesapeake dealing with a woodland located on church property. The project will a.) remove invasive, non-native species, undergrowth, and vines impeding growth of a variety of native trees; b.) develop mulched paths; c.) remove litter/trash; and, d.) develop a demonstration meadow habitat adjacent to the woodlands. This will make the woodlands a safer and more enjoyable resource for outdoor education classes of the Presbyterian Child Care Center, the adjacent elementary school, and the neighborhood.	17

St. Paul's School	\$	1,223	Maryland	Baltimore County	Alter participating in the Living Classroom Sail, the fourth grade students from St. Paul's school will assist the Rangers in a tree planting event at the Robert E. Lee Park. The new trees will hold on to the soil, prevent sedimentation, filter the water returning to the Jones Falls, provide wildlife habitat and refresh the air. Students will advertise and provide information to the community at large about the Arbor Day Organization program, the Give-A-Tree Cards at Christmas. This program plants a tree in a national forest in honor of your loved one.	15
Calvert County Treasurer	\$	5,000	Maryland	Calvert	This program provides class-based curriculum to ninth grade students, and a subset travel to Battle Creek Cypress Swamp. The classroom lessons integrate the field experience, in particular, the effects of invasive species on ecosystem dynamics. During the field trip students work with naturalists to conduct research in the state-rare bald cypress swamp and scientific investigation of biodiversity. Students engage in a habitat stewardship project, where they remove non-native invasive species encroaching into the swamp and plant native trees and shrubs to restore the upland forest.	250
Calvert County Public Schools	\$	3,450	Maryland	Calvert	Third grade students in the Calvert County Public Schools will learn about the history of the diamondback terrapin and work towards the conservation of the species. Students will conduct classroom activities which will include the head-starting of a diamondback terrapin; and field work that will include a trip to the Chesapeake Bay to assess terrapin habitat as a potential sanctuary. Students will also conduct a tree planting action project in their backyard and community that includes an outreach component to raise terrapin awareness.	1200

Pickering Creek Audubon Center	\$ 68,400	Eastern Shore	Caroline	Exploring and Restoring Habitat with Caroline County Public Schools	Exploring and Restoring Habitat in the Chesapeake Bay Watershed is a new collaboration between Pickering Creek Audubon Center and Caroline County Public Schools (CCPS). Over the three-year term of the program, we will connect teachers and students to the watershed as they take on the roles of ornithologists, fisheries biologists, and restoration ecologists in the field. All ninth grade high school environmental earth science teachers and students from CCPS (430 students/five teachers/two supervisors) will participate in the project. In depth PD for teachers will include in depth use of the MWEE Guide and connections to scientists in the field.	500
ShoreRivers	\$ 22,284	Eastern Shore	Caroline	Greensboro Tree Initiative: Phase II	Midshore Riverkeeper Conservancy (MRC) is currently partnering with the Town of Greensboro to conduct an urban tree inventory and complete a Five Year Tree Planting & Management Plan by August 2017. The plan will prioritize potential tree planting locations by their ability to improve local water quality in the Choptank Watershed. MRC is requesting funding to support Phase II in 2017-2018: the implementation of planting the top 70 prioritized sites with native trees. MRC and the Town of Greensboro will utilize community volunteers in the planting; create a tree maintenance volunteer team; and host a homeowner tree planting workshop.	70
Delmarva Resource Conservation and Development Council	\$ 1,250	Eastern Shore	Caroline	Wetland Reserve Program Native Planting Event	This restoration project includes a native planting event to take place on a previously restored wetland in Caroline County on the eastern shore of Maryland in the Upper Choptank River watershed. Over 700 native trees, shrubs and herbaceous plants will be planted during a community planting event in spring of 2017 on a Wetland Reserve Program site owned by a private landowner. Wood Duck box kits will be assembled during a workshop with a local Girl Scout troop to be installed on site to provide habitat for these birds which are a trust resource for the Fish and Wildlife Service.	27

Town of Templeville	\$ 15,000	Eastern Shore	Caroline	Templeville Stormwater Pond Restoration and Protection Project	Templeville is seeking funding to develop a construction ready design to restore and protect the Town's park that features a storm water pond and recreational space. This project is located in the Upper Choptank River Watershed, in the Templeville Community Park. The main objectives of this project are restoration and protection of the pond and its environs, retrofit to address storm water, and rebuilding of park amenities. The WAGP will fund engineering design to ensure that this watershed restoration project contributes to the achievement of local WIPs and, by extension, to restoration of the Chesapeake Bay system.	24
Adkins Arboretum	\$ 75,000	Eastern Shore	Caroline	Implementation - Adkins Arboretum Parking Lot Alive!	PROJECT DESCRIPTION This project proposal seeks funding to implement high profile stormwater BMPs in the Adkins Arboretum main parking lot. Implementation of this project will demonstrate attractive and engaging practices for managing stormwater runoff. The project will replace 1,790 S.F. of impervious surface with a heavily planted bioretention garden and pervious paving. A bridge will traverse the bioretention garden leading visitors to the entrance of the Arboretum. The main objectives of this project are to improve water quality in the Choptank River watershed and to demonstrate innovative green infrastructure practices and provide costs related to green stormwater BMP retrofits.	35
Environmental Concern Inc.	\$ 1,249	Eastern Shore	Caroline	Native Plant Propagation Garden at Environmental Concern	The Native Plant Propagation Garden will be planted on Environmental Concern's waterfront property in Saint Michaels, Talbot County, MD. This project will include a native planting of select species that Environmental Concern (EC) propagates for wholesale, retail and restoration purposes, as well as species known to benefit monarch butterflies. It will also include the construction of solitary bee confinements to help with pollination and integrated pest management. Interpretive signage will be installed to enhance the garden's use in EC's educational plant identification courses.	12

Adkins Arboretum	\$	14,410	Eastern Shore	Caroline	Adkins Arboretum Wetland Enhancement Project	The Adkins Arboretum Wetland Enhancement Project, located at the Arboretum in Ridgely, Maryland will improve and diversify the wetland habitat and serve as an educational tool to all visitors and environmental stewardship youth and adult programs. This Track 3: Outreach and Restoration Project will include community involvement with invasive plant control, installation of native plants and youth and adult stewardship programs.	18
Carroll County Forest Conservancy District Board	\$	4,907	Central	Carroll	2017 Carroll County Forestry Board's Backyard Buffer Seedling Handout	The Carroll County Forestry Board administers the Backyard Buffer program to urban/suburban landowners that own small acreages (< 5 acres). Fully subsidized tree bundles are distributed in the spring to qualified applicants for plantings within 300 feet of a water body. Forested buffers convey a number of ecological and societal benefits, such as improved water quality and wildlife habitat. Current cost-shared programs, however, target large landowners, but the emerging population of urban/suburban landowners doesn't qualify for these programs. As a means to target this audience, and ensure greater planting success, we request funds to partially subsidize tree shelter costs.	2000
Carroll Soil Conservation District	\$	120,500	Central	Carroll	Wilt Road Stream Restoration	The Carroll County Soil Conservation District in partnership with its design/build consultant Ecotone Inc., is applying for project design funding under the Chesapeake Bay Trust Watershed Assistance Grant. The District intends to use this money to pay for a unique design project to improve water quality and habitat by incorporating stream restoration, and wetland creation best management practices. Effective installation of the BMPs will result in the reduction of 310.12 lbs/yr of nitrogen, 117.36 lbs/yr of phosphorous, and 115,534.32 lbs/yr of sediment from entering the Chesapeake Bay.	1421

Boy Scouts of America Venturing Crew 202	\$	24,980	Central	Carroll	Crew 202 Tree planting at Morgan Run Center	The objective of this Boy Scout Venturing Crew 202 project is to reforest and maintain 2.5 acres of native forest near a tributary of Joe Branch within the Morgan Run watershed in Liberty Reservoir near Gamber, MD. This project will fill in unplanted areas at DNR's 27 acre Morgan Run Center. As with previous plantings, we expect a high degree of community involvement with as many as 200 volunteers participating. This reforestation will benefit water quality, improve wildlife habitat, reduce downstream flooding, reduce drinking water treatment costs and sequester carbon.	1000
McDaniel College	\$	22,348	Central	Carroll	Singleton-Mathews Headwaters Project	McDaniel College seeks to scale restoration efforts at our 54-acre off-campus Singleton-Mathews property in Carroll County, Maryland. We are looking to partner with the CBT and work with diverse college students, along with faculty and staff, to develop 2.1 acres of woodland riparian buffer using native plant species. As a headwater of the Chesapeake Bay, the property hosts two cold-water springs, two ponds, and a perennial creek. The creek originating on the property is part of the Double Pipe Creek watershed and is a headwater of Turkey Run, which feeds the South Branch of the Patapsco before reaching the Bay.	800
Carroll County Public Library	\$	5,000	Central	Carroll	Finksburg Library Community Garden Project	The Finksburg Library Garden Project is a community based effort designed to capitalize on the volunteer support demonstrated by our community for the Finksburg Library Branch. We are proposing to establish the Finksburg Library Community Garden within the Liberty Reservoir watershed. An enthusiastic group of founding members, comprised of master gardeners, gardening enthusiasts, resource experts and Carroll County Public Library staff is now developing the phase-in of three related garden sites surrounding the Library proper. This garden will expand the opportunity for our community volunteers and partners to preserve our natural environment while educating our community on the importance of caring for the Chesapeake Bay.	13

Manchester Valley High School	\$	5,000	Maryland	Carroll		The Enviro Club, National Honor Society, and Aquatic & Terrestrial Environmental Science students at Manchester Valley High School want to control soil erosion and increase biodiversity on a steep hillside which flows into a nearby stream. Students will research native and beneficial plants that retain the soil. Then students will design and choose the best plan, and do a school-wide planting. In the future, science classes will maintain the area and use as an example of how anyone can do their part to keep the Chesapeake Bay watershed healthy.	54
Girl Scouts of Central Maryland	\$	30,000	Eastern Shore	Cecil	Conowingo Tree Power	GSCM intends to reforest an acre of land on the Chimney Trail section of Camp Conowingo using native tree species. GSCM cleared a stand of 140 weak and aged poplar trees at this location in 2017, after having closed down a campsite once limbs from these hazard trees began to fall. This DNR easement area drains to the Susquehanna River. Sediment control and shading of low impact cabin units are the immediate outcomes of this reforestation project. An outreach and education project, combined with reforestation will provide a real-world experience in environmental stewardship to approximately 350 girls/young women.	140
Fair Hill Environmental Foundation, Inc.	\$	34,985	Eastern Shore	Cecil	Stewards of Tomorrow	Fair Hill Nature Center (FHNC) will work with Cecil County Public Schools to implement six hours of Meaningful Watershed Education Experiences (MWEE) with all 1200 CCPS 1st grade students. FHNC will provide fifteen hours of paid professional development to CCPS 1st grade teachers. FHNC will work with each class to complete action projects at each of the sixteen elementary schools. Community partners will help with the MWEEs, professional development sessions and the action projects throughout the 2016-2017 school year.	25

The Nature Conservancy	\$ 17,364	Southern	Charles	Charles County Forestry Mixed Hardwood Restoration at TNC's Nanjemoy Creek Preserve	This reforestation project aims to restore native mixed-hardwood forest cover across two areas totaling 25-ac previously occupied by Virginia pine monocultures that were blowing over and creating a fire hazard. The vast majority of TNC's 2,683-ac Nanjemoy Creek Preserve project area is comprised of mature hardwood forest which provide high quality riparian protection and FIDS habitat. However, scattered areas within this larger holding were established as pine plantations for timber production purposes by previous owners, whereas our management objectives involve converting them back to more natural forest cover over time.	12500
Charles County Public Schools	\$ 42,017	Southern	Charles	How can I impact my school ecosystem?	Charles County Public Schools (CCPS) will partner with The Alice Ferguson Foundation (AFF) to implement an environmental literacy program for 3rd grade students. CCPS and AFF will expand on existing curricula to develop an interdisciplinary full Meaningful Watershed Educational Experience (MWEE) for all 3rd grade students. Programming includes professional development with ongoing instructional support for teachers. The MWEE will be driven by the investigative question, "How can I impact my schoolyard ecosystem?" The systemic program will guide students through outdoor experiences and classroom learning resulting in action to address local environmental issues.	100
Charles Soil Conservation District	\$ 42,500	Southern	Charles	Charles Co Ag & Env Serv Ctr 2018 BMP Implementation	This is a multi-faceted project that creates several conservation practices that serve dual purpose as nutrient and sediment load reduction practices as well as demonstration/training sites: native landscaping, bioretention/raingarden areas, grassed waterway and diversion, pollinator habitat and arboretum. Several additional sub-projects of which funding is requested will be used to supplement training of the diverse community pertaining to the conservation of our natural resources: interpretive signage and trails, improvements to existing educational pavilions and creation of a permanent soil pit for soil health training.	40

Nanticoke Watershed Alliance	\$ 26,695	Eastern Shore	Dorchester	Enhancing Stormwater BMPs for Poultry Farms in the Nanticoke Watershed for Improved Water Quality - Track 1 Outreach/Knowledge Building Project	PROJECT DESCRIPTION The Nanticoke Watershed Alliance (NWA) will help poultry growers develop alternatives to mowed grass on their property by testing variations of buffer plantings for improved stormwater management. The Nanticoke River Watershed has a large number of poultry producers. These facilities typically have large swaths of impervious surfaces that can be a source of stormwater pollution. Working closely with the poultry farmers, NWA will convert mowed grass areas between chicken houses into vegetative buffer to capture and filter stormwater runoff and reduce the amount of pollutants reaching the Nanticoke Watershed to reduce pollution to the Chesapeake Bay and its tributary rivers.	60
American Farmland Trust	\$ 30,000	Capital	Frederick	Women Landowners for Chesapeake Bay Water Quality	Women Landowners for Chesapeake Water Quality, will engage 45 women agricultural landowners and 24 professionals in Conservation Learning Circles, peer-to-peer facilitation to foster development and engagement in conservation implementation and succession goals in Frederick, Carroll, and Washington Counties. Ten graduates will work with Maryland Forest Service to install 435,600 sq feet of riparian buffers, to reduce 10,778 pounds of nitrogen, 662 pounds of phosphorus, and 8,138 pounds of sediment from entering the Chesapeake Bay annually. The buffers will include 4,000 new trees with 3,200 of native, 1,000 pollinator-friendly, and 100,000 square feet of invasive species removed.	4000
Chesapeake Bay Foundation, Inc.	\$ 17,805	Capital	Frederick	Upper Potomac Farm Stewardship & Outreach Program	CBF proposes to work one-on-one with farmers in the Upper Potomac watershed to implement and maintain forested riparian buffers, stabilize streambank, deliver technical assistance, and connect farmers with cost-share funds in Maryland's Upper Potomac watershed. CBF will recruit and coordinate community and student volunteers to accomplish restoration projects and cultivate environmental stewardship in the public. CBF will also accelerate farmer engagement, increasing our outreach to farmers in the region about sustainable agriculture, and promoting farmer success stories and conservation accomplishments through a Farmer Spotlight series on CBF's blogs, website, and/or social media.	3000

Land and Cultural Preservation Fund, Inc	\$	50,000	Capital	Frederick	Waterside Community Stream Restoration Project	Waterside Community Stream Restoration Project seeks to engage the Waterside Community in Frederick, MD in planting 1,380 trees, establish a 4.6 acre riparian buffer to improve water quality in Tuscarora Creek and the Monocacy River, both suffering from severe erosion, and rid the site of an invasive species. This project will work to have a positive long-term environmental impact and increase the knowledge in the targeted community about stormwater runoff and homeowner best management practices via a workshop to educate 50 participants, a mailing to reach all 588 households, and a storm drain stenciling campaign to stencil 15 drains.	1380
Frederick County Office of Sustainability and Environmental Resources (OSER)	\$	10,700	Capital	Frederick	Neighborhood Green Community Reforestation Project	PROJECT DESCRIPTION The Frederick County Office of Sustainability and Environmental Resources will offer targeted outreach through its Neighborhood Green and Green Leader Brigade programs in the Lower Monocacy and Potomac Direct Watersheds. The Neighborhood Green Community Reforestation Project will use volunteers and professionals to plant native trees on 8 acres in the Villages of Urbana and Canal Run properties and one volunteer tree planting on 1 acre within the watershed. The project will result in increased tree canopy with potential to improve water and air quality; provide wildlife habitat and ecological benefits; and, engage Frederick County citizens in stewardship and community restoration.	1000
Frederick County Office of Sustainability and Environmental Resources (OSER)	\$	320	Capital	Frederick	Creagerstown Park Tree Planting	My capstone project is to be the project manager for the tree planting located in at Creagerstown Park in Thurmont, MD as a part of Frederick County Office of Sustainability and Environmental Resources (OSER) Creek Releaf Program. The Creek Releaf program, is designed to increase the total amount of forested area within Frederick County, including privately owned lands and public properties. I will be working alongside of Frederick County Parks and Recreation for this project as they are developing park. Creagerstown Park is currently under construction and will include areas of reforestation. Planting these trees will not only benefits local residents by providing them with a scenic forest area, but will also benefits OSER in meeting the impervious acreage restoration requirements for the Municipal Separate Storm Sewer System Permit (MS4).	910

Frederick County Office of Sustainability and Environmental Resources (OSER)	\$ 1,250	Capital	Frederick	Riparian Forest Buffer Planting	The proposed project is a riparian forest buffer planting along Glade Creek at a privately-owned farm in Walkersville, MD. Three hundred native trees will be planted within a one acre area at the site. The project aims to improve the water quality of Glade Creek by filtering nutrients and sediments in runoff, reducing the site's flooding potential, stabilizing the stream bank and preventing erosion, and providing shade and leaf litter to the stream. Additional project goals include engaging the public on the environmental benefits of riparian buffers and engaging volunteers in stream restoration through hands-on experience.	300
Frederick County Office of Sustainability and Environmental Resources (OSER)	\$ 1,240	Capital	Frederick	Riparian Buffer Planting at Pinecliff Park	Since 2009, the Frederick County Office has conducted a stream restoration project and tree planting along Plankstone Creek in Pinecliff Park. Due to steep slopes, maintenance issues, and frequent flooding of the stream, the plantings have been unsuccessful and the restoration quality has degraded. The current proposed project will plant 300 native trees and shrubs within a 30,000-square-foot area along the stream to improve site quality.	220
Friends of Waterford Park	\$ 1,247	Capital	Frederick	Waterford Park Food Forest	This project will start a food forest in Waterford Park by planting native, food producing trees. The location for the Project will be in Waterford Park, which is a short 10 min walk from downtown Frederick. The main objective is to plant around 40 total trees of persimmon, pawpaw, hazelnut and service berry. We hope this project will increase the forest buffer for Rock Creek and provide local fruit to park users.	49

Carroll Creek Montessori Public Charter School	\$	4,843	Maryland	Frederick		Middle school students at Carroll Creek Montessori will participate in service projects and outdoor education within the Monocacy River Watershed in Frederick, MD. The main objective is for students to acquire a sense of belonging and a positive force of change for improving our local watershed through changes on their school campus. Furthermore, through class trips to the Bay, they will see how the watersheds are connected and our choices and actions have far-reaching impacts.	100
Alliance for the Chesapeake Bay	\$	75,000	Central	Harford	Healthy Forests. Healthy Waters: A Turf to Trees Program	The Alliance for the Chesapeake Bay will collaborate with Interfaith Partners for the Chesapeake and Maryland Forest Service to create an outreach plan to targeted private landowners and implement upland tree planting and riparian forest buffer projects on private suburban and agricultural lands within the Harford County Priority watersheds of Bynum and Winters Runs. Projects will be established by qualified natural resource contractors under the guidance of the Alliance and the ND Forest Service and deliver quantifiable nutrient and sediment reductions through afforestation projects on 11.5 acres of private land These plantings would be at least 1/3rd of an acre in size planted with bare root seedlings at a 10 ft. by 10.ft. spacing. (430 trees per acre). For church site plantings where larger stock trees might be desired (1/2" to 3/4" caliper) we will plant at a 15 ft. by 15 ft. spacing. (145 trees per acre). All trees would have deer and vole protection. In addition to the tree plantings, contractors will implement one year of maintenance to insure establishment of plantings and overall success of the project. Participating landowners agree to act as stewards of the installed plantings by maintaining the BMPs at a functional level for a minimum of 10 years as outlined in a landowner agreement.	4945
Alliance for the Chesapeake Bay	\$	74,901	Central	Harford	Healthy Forest Healthy Waters Harford II	PROJECT DESCRIPTION The Alliance for the Chesapeake Bay will continue to partner with Maryland Forest Service and local entities in Harford County to 1) target upland and riparian tree planting projects on private suburban and rural lands within the Bush River watershed and 2) educate local residents, community groups and faith based groups about the importance of trees and forested landscapes for water quality and quality of life. The Alliance will expand the collaborative Healthy Forest Healthy Waters program to install 12 acres of new woodlands and engage and train 100+ residents on how to increase tree canopy on their property.	3636

Harford Soil Conservation District	\$ 49,500	Central	Harford	Old Level Road Stream Restoration	The Harford Soil Conservation District is requesting funding to pay 350 for a comprehensive design to improve water quality and habitat, which will incorporate stream restoration and wetland creation best management practices. In the proposed design approximately 1,183 linear feet of stream will be realigned to a more stable planform and surrounded by livestock exclusion fencing. Effective installation of the BMPs will result in a reduction of 255.76 lbs/yr of nitrogen, 91.07 lbs/yr of phosphorous, and 67,276.87 lbs/yr of sediment from entering Graveyard Creek, a tributary to the Chesapeake Bay.
Havre de Grace Maritime Museum	\$ 4,500	Central	Harford	Invasive species and debris removal, native plantings and development of long-term invasive species management plan	This project will continue work conducted under FY 2014-15 grant 65 #12760 and and support from the Harford County Forestry Board, the City of Havre de Grace, the Lower Susquehanna Heritage Corridor and Maryland DNR and Conservation Corps, Board, volunteers and individual donors. Invasive plants over-ran the property and have required several herbicide treatments and rounds of physical removal and need more work in the spring; we will continue native plantings to re-vegetate the areas and debris removal. We are working with MD DNR), project lead Chris Beecraft and the City of Havre de Grace, project lead, Dianne Klair-see attachments.
Havre de Grace Maritime Museum	\$ 35,508	Central	Harford	Havre de Grace Living Shoreline Restoration and Storm Water Management	Our project would create a riparian buffer along 600 feet of cove 17 and tidal shoreline and a pilot storm water management initiative for rain barrel workshops and pet waste kits installed in our local parks. Creating a riparian buffer entails: clearing trash/debris; controlling invasive plants (in particular Japanese Knot-weed); planting indigenous bushes and low-growing trees; and educational signage along the targeted area. Our rain barrel workshop and outreach project would produce 75 barrels for HdG residents. Our community partners include the local Green Team, Tree Commission, Citizens Against Trash, Decoy Museum, High School and City of Havre de Grace.

Howard EcoWorks	\$	40,000	Central	Howard	Tree HoCo	Howard EcoWorks will engage private property owners in or adjacent to the Green Infrastructure Network (GIN) in tree planting projects, a new campaign called Tree HoCo, which will engage 135 people. Through Tree HoCo, an estimated 3 acres of private lands will be planted with 630 trees. In addition, 500 trees will be given away during two educational workshops. As a result of this planting effort, we will achieve multiple benefits of enhanced ecosystem services, increased habitat for wildlife and pollinators, reduced polluted stormwater to lakes and streams and overall beautification.	951
Howard County Conservancy, Inc.	\$	16,490	Central	Howard	East Branch Stream Buffer Planting Project	The East Branch Stream Buffer Planting Project will result in the expansion of the stream buffer to aid in the protection of the East Branch Stream, part of the Patapsco River Lower North Branch Watershed. Located on the grounds of the Howard County Conservancy, a nonprofit environmental education center, 132 volunteers from the community will be engaged on Earth Day 2018, helping us plant 355 trees in the proposed area. The proposed buffer will reduce erosion, improve water quality, and protect wildlife in and around the stream.	355
Columbia Association	\$	15,000	Central	Howard	Invasive Species and Reforestation projects in Columbia MD; Track 2: Restoration Project	PROJECT DESCRIPTION Columbia Association (CA) is the nonprofit homeowner's association/community service corporation created by Jim Rouse to manage and protect the more than 3600 acres of open space. This proposal asks for support from the Chesapeake Bay Trust to replace invasive species with native perennial plants at three Pull & Plant events, to plant 300 trees, and to install 500 live stakes along eroded stream banks all while employing the assistance of local volunteers. These restoration projects engage local residents, improve water quality, and enhance natural habitats.	300

University of Maryland	\$	30,000	Central	Howard	Education, Engagement & Implementation in the Patapsco Lower North Branch Watershed	The project is designed to engage the leadership, residents and students of neighborhoods and schools in the Patapsco River Lower North Branch Watershed of Howard County, particularly the Tiber Hudson subwatershed so participants will accept and implement landscaping practices that reduce polluted stormwater coming off impervious surfaces in their neighborhoods and schools. We propose to continue our successful program of local workshops, seminars, and community meetings offered to homeowner associations (HOAs) and neighborhoods, as well as the recently implemented school programming, TEAM DNR Chesapeake Bay Watershed Program designed by Department of Natural Resources (DNR) focusing on elementary and middle schools.	292
Howard EcoWorks	\$	50,856	Central	Howard	Making Suburban Lands Working Lands	PROJECT DESCRIPTION Private landowners in Howard County will increase the ecological value of their lawn areas while improving community resiliency through tree plantings, perennial agriculture planting, passive rainwater harvesting and participation in two educational workshops and one bus tour. Sixteen landowners have been engaged in planting of approximately 81,750 square feet (1.9 acres) and 220 trees and shrubs. The educational events will focus on methods, techniques and practical applications for Making Suburban Lands Working Lands to encourage conversion of turf grass to more functional systems that will benefit humans, wildlife and watersheds.	220
The Community Ecology Institute	\$	4,650	Central	Howard	The HOWARD COUNTY INTERFAITH FOREST PROJECT	The Howard County Interfaith Forest Project will include diverse community members for two years in the creation of a native plant forest while building community with shared ecological knowledge and values of watershed stewardship and climate change mitigation. Partnering with the Columbia Association and interfaith communities, the innovative Miyawaki technique of accelerated afforestation will be implemented to maximize the ecological value of the project and civic ecology practices will be used to enhance its social-psychological and cultural benefits. Participants will be trained in techniques that help them bring reforestation efforts to their neighborhoods by organizing their own civic ecology projects.	213

Friends of the Patapsco Valley Heritage Greenway, Inc.	\$ 29,998	Central	Howard	Track 1: Outreach/Knowledge Building: Patapsco Clean Stream - Education and Stewardship Efforts in Elkridge	PROJECT DESCRIPTION The Patapsco Clean Stream project in Elkridge, Maryland will focus on engaging a new audience to participate in our stewardship events with the goal of increasing knowledge of environmental issues while also conducting hands-on stewardship activities to ultimately improve the habitat and water quality within the local watershed. This project will mobilize at least 500 community volunteers to conduct at least 10 stream cleanups, 4 invasive plant removals, 2 native shrub and tree plantings, and storm drain labeling to reduce the amount of pollution and increase the native tree canopy in Elkridge, Maryland.	80
River Hill Watershed Committee	\$ 7,820	Central	Howard	River Hill Watershed Initiative 2016-18	The River Hill Watershed Committee has a proven track record of leading the charge on pulling invasive plants in local natural areas, planting natives, providing awareness to River Hill residents about the importance of watershed health, and educating how each person can improve the quality of our watershed through their individual actions. The Watershed Committee aims to augment their existing programs and providing additional rain barrels and native plants for the community, schools, and increasing their visibility as a means to affect greater behavior change.	40
Howard County Recreation & Parks, Natural & Historic Resources Division	\$ 1,247	Central	Howard	Shrub-Scrub Habitat Restoration	PROJECT DESCRIPTION This is a habitat restoration project, that is part of the Woodcock Management Plan in the Middle Patuxent Environmental Area. It focuses on restoring early successional ecosystems that the American Woodcock, and other species use as habitat, with additional goals of providing educational and wildlife sightseeing opportunities. This capstone project will restore open, second growth hardwood area that woodcock use for brood nesting. To create this ecosystem, a site has been selected, invasive species removal is underway, and native plants will be established. We will use this grant to buy the plants that will compose the foundation of this ecosystem. This is a habitat restoration project, that is part of the Woodcock Management Plan in the Middle Patuxent Environmental Area. It focuses on restoring early successional ecosystems that the American Woodcock, and other species use as habitat, with additional goals of providing educational and wildlife sightseeing opportunities. This capstone project will restore open, second growth hardwood area that woodcock use for brood nesting. To create this ecosystem, a site has been selected, invasive species removal is underway, and native plants will be established. We will use this grant to buy the plants that will compose the foundation of this ecosystem.	24

First Presbyterian Church of Howard County	\$	4,665	Central	Howard	Tracing the Patapsco River from Howard County to the Chesapeake Bay-IPC	<p>The Tracing project will engage many community volunteers to install six stormwater restoration Best Management Practices on either First Presbyterian property or Howard County land and help adults understand the interconnections between the health of HC rivers and health of the Chesapeake Bay.</p> <p>The Earth Forum of Howard County will provide the foundation of experience and organization to organize, coordinate, implement and evaluate Tracing.</p> <p>A unique system, Learning Environment and Volunteering as Earth Stewards (LEAVES), has been developed to manage volunteer time and activities. Participation will be recognized by providing an experience aboard the CBF Snow Goose laboratory vessel.</p>	16
Tanglewood Homeowners Association	\$	4,682	Central	Howard	Replace Invasive Bradford Pear Trees with Native trees	<p>The purpose of this grant is to involve the neighborhood in replacing invasive Bradford Pear trees with native trees appropriate for the site. Four Callery Pear trees will be replaced with 12 native trees. These trees are located behind the sidewalk in the 6300 block of Sunny Spring [road] Columbia, Maryland. Educational botanical signs will be installed near the public sidewalk as outreach to the general community. Volunteers to plant the trees will be recruited from the neighborhood and the local high school. Elderly and handicapped residents of our community will be encouraged to participate or observe the tree planting.</p>	12
Dunloggin Middle School	\$	998	Maryland	Howard		<p>Students remove trash from two local streams and calculate the amount of trash removed. The students remove invasive species and re-plant native species of trees along to prevent erosion. Through the establishment and maintenance of a wetland area, students are helping to create a natural habitat for wildlife as well as provide a buffer to absorb excessive nutrient runoff. The students perform water quality testing on the streams/ wetland area to determine the health of the water, take population samplings of the various organisms found in the area, and also have created and maintained nature trails through the area.</p>	75

Eastern Shore Land Conservancy's Sassafras Environmental Education Center	\$ 23,977	Eastern Shore	Kent	Agro-Ecology Through MWEE's	<p>PROJECT DESCRIPTION</p> <p>The Agro-Ecology through MWEE's project will continue implementation of a systemic 5th and 9th grade MWEE in Kent County Public Schools (KCPS) and revise the 4th grade field experience into a full MWEE. The Sassafras Environmental Education Center (SEEC) currently visits KCPS 4th graders in school and provides them with an outdoor experience. SEEC aims to incorporate an action project as well by conducting teacher professional development and providing the funds to do so through the Chesapeake Bay Trust.</p>	50
Chestertown Garden Club	\$ 2,793	Eastern Shore	Kent	Garnet Good Seeds Garden	<p>PROJECT DESCRIPTION</p> <p>The Garnet Good Seeds Garden will be a beautiful native landscape and education space, with edible plants, playful pathways, and tree stump seating. This collaborative community project will enhance H. H. Garnet Elementary School's curb appeal, visually connect the school to downtown Chestertown, MD, and foster a pride of place among students, teachers, and residents. Meaningful student experiences will connect to curricula across disciplines. A Chesapeake Bay Trust grant will help fund the Good Seeds Garden's Community Launch event and first phase of planting. Your support will help us achieve our community objectives of placemaking, education, and curb appeal.</p>	23
Ecotone Inc	\$ 369,825	Eastern Shore	Lower	Taylor's Island Road Wetland Restoration	<p>This proposal is for 15 acres of wetland restoration on a parcel on Taylor's Island Road in Dorchester County. The site is located on current agricultural land but has excellent opportunity for wetland restoration. The site is incredibly flat and has saturated soils with consistent on-site hydrology. Manipulating the hydrology to enhance the wetland area will require minimal grading.</p>	9000

National Aquarium	\$	4,950	Eastern Shore	Lower	Atlantic White Cedar Restoration	The National Aquarium seeks funding to implement a tree planting project at the Nassawango Creek Preserve. The Atlantic White Cedar Wetland Restoration project is an ongoing partnership entering its tenth year between the National Aquarium and The Nature Conservancy. Atlantic white cedar is ranked as a vulnerable tree species in the state of Maryland and is an important species within the wetland forest area being restored. We will work with local community volunteers to plant Atlantic white cedar seedlings and restore valuable wildlife habitat.	4050
Maryland Coastal Bays Program	\$	1,250	Eastern Shore	Lower	Ilia Fehrer Nature Reserve Restoration	The Ilia Fehrer Nature Reserve is a headwater forest in Berlin, Maryland. Eighty acres of the property were formerly a loblolly pine monoculture that was harvested to restore this area to deciduous forested wetlands. This year, 8.5 acres of the project will be planted over a series of community volunteer days and service-learning trips. The Maryland Coastal Bays Program is currently responsible for management of this property. Restoring native hardwood to create a deciduous pine mixed forest performs important services such as providing clean freshwater to waterways, increase biodiversity of forest interior species, and creating natural spaces for the community.	4400
GreenVest, LLC	\$	840,000	Eastern Shore	Lower	Birch Branch Wetland Restoration Project	The GreenVest team seeks funding under Application Track 1 (Contract) to design, implement, maintain and monitor the Birch Branch Wetland Restoration project within the Isle of Wight Bay Watershed. The project would provide 10.0 acres of wetland restoration (~9.0 acres re-establishment and ~1.0 acres rehabilitation of farmed wetlands) and 1.25 acres of non-tidal wetland for an maximum cost of \$857,590 [\$76,230 per acre (\$87,958 per mitigation unit)]. Additional acreage suitable for wetland restoration is available on the site and the project could be expanded, should additional funding be available.	3181

Salt Grass Bali Hi, LLC	\$ 329,369	Eastern Shore	Lower	Salt Grass Farm on St. Martins River	This project, along the impaired St Martins River in Isle of Wight Bay, is a dream location for nutrient reduction and wildlife habitat creation. Nestled on a 192-acre property next to 156 contiguous acres of protected land, the project proposes to restore and enhance 20.1 acres of marginal farmland and hydrologically impaired forest into a forested wetland with a few open areas for dabbling ducks and migrating shorebirds. An extensive easement will target not only the wetland but also 6.5 additional acres of an unprotected forest mitigation site that lies within the targeted restoration area.	1600
The Nature Conservancy	\$ 1,055	Eastern Shore	Lower	Shortleaf Pine Restoration	The Nature Conservancy's 252-acre Plum Creek preserve has undergone major restoration over the past decade. Loblolly pine plantations that once dominated the preserve, including a xeric dune, have been cleared to plant native tree species, such as the shortleaf pine, and fire has been re-introduced, creating early successional habitat in which fire adapted shortleaf pine forests, and the many mammal and bird species they support, thrive. This project will include the preparation of planting sites and the planting of 1,000 short leaf pine saplings at the Plum Creek preserve, furthering restoration efforts and contributing to overall site resilience and habitat health.	1000
Town of Berlin	\$ 75,000	Eastern Shore	Lower	Graham Avenue Submerged Gravel Wetlands - Track 3: Outreach and Restoration Project	The proposed project, entitled "Graham Avenue Submerged Gravel Wetlands", primary objectives are to improve water quality and reduce localized flooding. The project resides on an existing Town owned parcel, prior utilized as an electrical substation, which has been underutilized for years. The parcel resides within the headwaters of one of the worst flooding areas within the Town, and therefore has been selected for the installation of a submerged gravel wetlands facility for water quality with additional surface storage to provide water quantity management.	40

Ecotone Inc	\$ 500,000	Eastern Shore	Middle	Longwoods Road Nontidal Wetland Restoration	<p>PROJECT DESCRIPTION</p> <p>Ecotone has identified a 221-acre agricultural property to design and construct 13.09 acres of forested nontidal wetlands. The landowner has agreed to protect the restoration site with a Declaration of Restrictive Covenants and a Permanent Easement. The proposed wetland creation project is located just north of Easton, Maryland.</p>	10608
Maryland Department of Natural Resources	\$ 9,499	Eastern Shore	Middle	Edible Understory - Track 2 Restoration Project	<p>PROJECT DESCRIPTION</p> <p>The proposed project will plant 900 native fruit and nut producing trees and shrubs in a "walk and harvest" path at a publicly accessible location in Bloomfield Farm in Queen Anne's County. Local contractors will install and maintain the planting through mulching, invasive plant control and deer fencing. This project offers numerous ecological co-benefits: enhanced pollinator and bird habitat, as well as carbon sequestration, stormwater absorption and reduced runoff within the Corsica River watershed. Through informational signage and workshops, community residents will learn about edible natives and gain access to locally grown healthy food.</p>	900
ShoreRivers	\$ 38,545	Eastern Shore	Middle	Students for Streams: Sustainability and Expansion	<p>ShoreRivers is seeking to systemically implement our Students for Streams MWEE program in 7 public high schools across 4 counties in Maryland. ShoreRivers will work with Sassafra Environmental Education Center to develop and co-lead Kent County Public High School teachers through their first sustainable MWEE. ShoreRivers will continue to work with Dorchester, Queen Anne, and Talbot County Public Schools in order to provide professional development specifically designed to tackle obstacles that teachers identified in creating a completely sustainable MWEE, such as funding and lack of administrative support.</p>	50

Midshore Riverkeeper Conservancy, Inc.	\$	1,250	Eastern Shore	Middle	Unitarian Universalist Fellowship Riparian Buffer Planting/Nature Walk	The Unitarian Universalist Fellowship Riparian Buffer Planting/Nature Walk brings together restoration, education, and environmental stewardship. This planting will create an 11,000-square-foot riparian buffer on the property of Unitarian Universalist Fellowship in Easton, MD to reduce runoff entering the Tred Avon River. Additionally, the church's existing Nature Walk will be enhanced with additional plantings and educational signs to connect environmental stewardship with spirituality. Midshore Riverkeeper Conservancy hopes to forge a lasting relationship with more centers of faith in order to increase restoration efforts and engage a new and diverse audience in environmental stewardship.	32
ShoreRivers	\$	74,000	Eastern Shore	Middle	Students for Streams Professional Development Program	PROJECT DESCRIPTION Midshore Riverkeeper Conservancy (MRC) seeks to make Meaningful Watershed Educational Experiences (MWEE) more sustainably integrated in classrooms. MRC's goal is to provide teachers and administrators support, skills, and confidence to sustainably and systemically lead a full MWEE in 9th grade classes in Talbot, Dorchester, and Queen Anne's Counties, reaching 3765 students in three years. MRC will achieve this by: extended professional development programming, incorporating accountability in classrooms and counties; and building a support network for secondary teachers on the Eastern Shore. The long-term goal of this project is to identify practices in creating a replicable model for sustainable environmental education.	19
Talbot County Public Schools	\$	5,000	Maryland	Middle		Talbot County Public Schools (TCPS) and Pickering Creek Audubon Center (PCAC) will partner to deliver professional development to teachers and lessons detailing the importance of wetlands, human's affects on wetlands and how to restore wetlands to students. The culminating action for this activity will be a field experience and restoration project at PCAC. The objective of this project is twofold, to produce environmentally aware members of society and develop a sense of community service in the students. After the initial lessons the students will be involved in all levels of planning and construction of the habitat project.	160

Queen Anne's County Public Schools	\$	4,988	Maryland	Middle	QACPS students taking Environmental Science and Marine Life will have the opportunity to learn about the Chesapeake Bay watershed. Students will receive the opportunity to become environmental stewards and make a difference in watershed health through developing their own study. Students will be active learners analyzing their own data and present their study at QACPS first ever Environmental Leadership Symposium. Students will be able to discuss their study with fellow community leaders in Environmental Education and offer recommendations to make our streams and shorelines a healthier Chesapeake Bay watershed.	100
Church Hill Elementary School	\$	1,125	Maryland	Middle	CHES 4th graders will investigate the following question: How has the Chesapeake Bay and its watershed changed in the last 400 years? We will compare our current schoolyard observations, Chesapeake Bay report cards, water quality data from CBIBS and FieldScope to primary sources from John Smith and other early sources. Our field experience on the Chester River aboard the 1768 schooner Sultana will allow us to discuss changes along the river, sample marine life, conduct water quality tests, and examine plankton under microscopes. Following the trip 4th graders will create a schoolyard nature trail with signs and field guides.	70
North Caroline High School Green Club	\$	2,500	Maryland	Middle	Students will carry out environmental education and service projects that benefit the school and community, through establishment of a pollinator garden, participation in off-site environmental projects like habitat restoration, water quality testing, macro-invertebrate surveys and completion of Green School Recertification. Students will become environmentally literate stewards by better understanding how ecosystems work, how human activity affects the environment, and how people can adopt sustainability practices. They will accomplish this by maintaining and monitoring wood duck nest boxes and rain garden, recycle weekly, and develop research projects, prepare and exhibit displays that document learning out in the community.	45

Audubon Naturalist Society of the Central Atlantic States, Inc.	\$ 47,873	Capital	Montgomery	"Nature for All" Riparian Forest Buffer Restoration	Alongside a stream stabilization, ANS will restore a 209,960 square foot forest buffer that suffers from invasive species, absence of understory, native tree recruitment failure, and loss of canopy trees with stream bank erosion. To ensure the future of a healthy riparian forest, we will plant 940 native trees and shrubs, 2,208 herbaceous plants and 4.4 pounds of seed. This will filter and slow stormwater runoff to Rock Creek, while also enhancing habitat for understory dependent birds and amphibians. In addition to water quality and habitat benefits, this project will result in greater public access to environmental education opportunities for thousands of Maryland residents.	940
Boy Scout Troop 291	\$ 841	Capital	Montgomery	Hyattstown Mill Tree Planting and Protection	In this project, we will be reforesting a field near the historic Hyattstown Mill Miller's House. We will be planting, protecting and watering about 50 native trees provided by the park. We will also be removing some invasive species. The main objectives of the project are to expand wildlife habitat in the park and absorb more storm water runoff. This project will also have the benefit of improving the view from the nearby Western Piedmont Trail.	50
Audubon Naturalist Society of the Central Atlantic States, Inc.	\$ 1,250	Capital	Montgomery	Meadow-Forest Ecotone Restoration	<p>PROJECT DESCRIPTION</p> <p>My project is an on-the-ground restoration of a meadow-forest ecotone between two meadows at Woodend Nature Sanctuary. The main goals include removing invasive plants in the area, planting native plants that are representative of the ecotone, and establishing a trail which meanders through the ecotone, connecting the two meadows. The benefits of restoring a native plant community at Woodend include increased wildlife habitat, reduced invasive species pressure throughout the property, better erosion control, as well as potential environmental education opportunities.</p>	48

Audubon Naturalist Society of the Central Atlantic States, Inc.	\$	1,250	Capital	Montgomery	Forest-Meadow Ecotone Restoration	PROJECT DESCRIPTION	45
						<p>This project is an ecological restoration of a forest-meadow ecotone area at Woodend Nature Sanctuary, headquarters of the Audubon Naturalist Society in Chevy Chase, Maryland. The restoration area is dominated by invasive species, but through their removal and the planting of native species, it is ripe for improvement. Restoration will have a lasting positive impact through the introduction of more native species and the subsequent creation of higher quality habitat at Woodend.</p>	
LDS Earth Stewardship	\$	25,000	Capital	Montgomery	Public Outreach and Stewardship and Community-Based Restoration for Pleasant View Historic Site	<p>We will improve storm water management by replacing turf with native plants and adding rain barrels to reduce runoff from the Pleasant View Historic Site visible along heavily traveled Route 28. Paths will bring visitors to the site where signs and labeled plants will educate them on native plants, pet waste disposal, and storm water management. Volunteers from multiple community groups will install plants and be trained on storm water management. Residents will attend three presentations on creating native plant habitat and improving storm water management for home properties. Participants will be surveyed and changed behavior reported.</p>	27
Beth Sholom Congregation and Talmud Torah	\$	60,948	Capital	Montgomery	Interfaith Watershed Restoration and Outreach Project	<p>At the crossroads of St. James and Beth Sholom, the Interfaith Watershed and Restoration Outreach Project will: (1) Utilize conservation landscaping design with native plants to replace invasive plants and promote a healthier air and soil environment, (2) Install a rain garden to capture stormwater runoff and pollutants from adjacent impervious surface areas to reduce flooding at the intersection of the properties and support the restoration of the Chesapeake Bay, and (3) Promote understanding of this project through the children's School, the broader faith-based communities at both institutions, and provide a community workshop through Friends of Cabin John Creek.</p>	16

Audubon Naturalist Society of the Central Atlantic States, Inc.	\$ 1,238	Capital	Montgomery	Forest Health Restoration Workshop and Planting	<p>PROJECT DESCRIPTION</p> <p>The Forest Health Restoration Workshop will educate the public, college students, and Chesapeake Conservation Corps (CCC) members about forest stewardship while accomplishing a small-scale restoration of a forest patch within the 40-acre Woodend Nature Sanctuary. Using the Chesapeake Bay Foundation's Community Forest Buffer Guide as a template, participants will learn about the ecological benefits of forest restoration, the science of reference ecosystems, and restoration logistics. Students and CCC members will also learn about potential career opportunities in forest restoration. The restored woodland area will improve the ecological condition of Woodend and demonstrate restoration best practices for up to 60,000 annual visitors.</p>	12
Chesapeake Bay Foundation, Inc.	\$ 1,041	Capital	Montgomery	Brewing for the Bay	<p>For this CCC Member capstone project, CCC Member Nora Jackson will educate consumers about farm breweries and the choices they can make to support clean water. Nora and CBF staff will host a workshop with a restoration component at a brewery. Through the Buy Fresh Buy Local Chesapeake (BFBLC) program, we will share content, resources, and highlight sustainable breweries. Farm breweries will be added to the BFBLC food guide, and highlighted for their commitment to sustainability and their local community.</p>	12
Meadowside Nature Center/ MNCPPC	\$ 1,187	Capital	Montgomery	Compost Demonstration Site	<p>I will be creating a Compost Demonstration Site at Meadowside Nature Center for composting food scraps and animal bedding material. The proposed Compost Demonstration Site will display five different composting systems that visitors can observe and also easily build or set up in their own yard. There will be one large permanent informative sign at the Demonstration Site describing the composting process, its benefits and how it relates to decomposition. In addition, there will be small signs identifying each composting system and handouts explaining how homeowners can make their own composting system.</p>	10

Audubon Naturalist Society of the Central Atlantic States, Inc.	\$ 1,250	Capital	Montgomery	Storm water management for Audubon Naturalist Society pond and trail system	An overarching goal of Audubon Naturalist Society is to control storm water runoff. The steep slope of the sanctuary combined with storm water rushing down the hillsides create erosion of the trails system and sediment buildup in our pond. Berms should be implemented to divert and disperse storm water, thus decreasing the speed and lessening the impact. This project will improve the health of our local Montgomery County watershed and the health of the Chesapeake Bay Watershed. Additionally, working with school groups and our summer camp attendees will educate local families on the benefits of storm water management.	10
Bannockburn Community Club	\$ 48,596	Capital	Montgomery	Community-Based Restoration Implementation and Community Outreach	<p>PROJECT DESCRIPTION</p> <p>The Bannockburn clubhouse is over 100 years old and sits on the highest point of a large 100,844 sq. ft. tiered property surrounded by 22 private homes. The force and amount of stormwater runoff from the large roof surface, driveway, walkway and patio has become a serious erosion and problem impacting our neighbors. Our goal is to redirect and harvest the maximum amount of storm water runoff from the property's impervious areas and keep it from reaching the Cabin John Creek watershed. Our project will implement conservation landscaping, dry wells and rain gardens in a multi . Future projects will include a fifty percent reduction of the grassy areas and replacing it with native plantings that support habitat and manage the flow of stormwater and pollutants locally.</p>	10
Cedar Grove Elementary School	\$ 1,530	Maryland	Montgomery		We will continue learning about Our Neighborhood Our Watershed. Students will install 2 rain barrels to prevent runoff to the blacktop and we will use the water to water our native plants. We would like to plant 5 maple trees for shade in our outdoor classroom. As our field experience we will attend a trip to the Arthur Sherwood Center at Meredith Creek to learn about how humans impact the bay and test the water quality.	25

Bethesda Green	\$	1,500	Maryland	Montgomery		<p>Bethesda Green Leadership Academy draws students from Bethesda-Chevy Chase, Walt Whitman, and Walter Johnson focuses on environmental stewardship via impactful projects and community engagement and encourages cooperative project development and delivery. Students have opportunities to learn from our incubator's next-generation entrepreneurs. Importantly, the program focuses on the development of at least one, significant project.</p> <p>Fall 2017 -- 2 Stream Clean Ups with Rock Creek Conservancy, Tree monitoring at Glen Way Gardens Condominium, Silver Spring, former CBT storm water reduction site (grant ended March 2017)</p> <p>Spring 2018 -- Spring Conservation Projects, student- led projects, location currently unknown and partners currently unknown</p>	20
GreenTrust Alliance Inc.	\$	50,000	Capital	Prince George's	Little Paint Branch Wetland and Stream Buffer Enhancement Project	<p>PROJECT DESCRIPTION</p> <p>Project Description</p> <p>The Little Paint Branch Buffer Enhancement Project seeks to add 5.5 total acres of forested and warm season grass/ pollinator-focused headwater buffer to an existing, contiguous 25 acre stream and wetland restoration project at the USDA Beltsville Agricultural Research Center (BARC) in Beltsville, Prince George's County, Maryland. The proposed buffer enhancement will enhance the functions and values of the previously constructed restoration projects, including one completed under the CBT-MDE nontidal wetland grant program. This site is a significant bird and pollinator "refuge island" within view of I-95 and the Capital Beltway, and is in the headwaters of the Anacostia River's Little Paint Branch, which is highly urbanized and a high priority for restoration activities (Figure 1).</p>	1409
1012053	\$	-	Capital	Prince George's	Magnus, Gary (Oseh Shalom Synagogue) - Urban Tree Canopy	<p>To plant 60 native trees at a nonprofit organization property in Laurel, Maryland.</p>	60

Town of Cheverly	\$ 121,833	Capital	Prince George's	Town of Cheverly -- Boyd Park / 64th Avenue Retrofit Project	The Town of Cheverly, MD is seeking assistance to design, engineer and construct green stormwater infrastructure elements within the municipally-owned Boyd Park, including a 575-foot stretch of 64th Avenue between the intersection with State Street and the bridge spanning Beaverdam Creek. The project area lies within the Lower Beaverdam Creek sub-watershed. The sub-watershed experiences high runoff volumes, trash levels, and pollutant loadings. The project is to design and install four micro-bioretenention practices and plant 30 trees within Boyd Park and the 64th Ave right-of-way. Interpretive signage will also be installed.	30
Maryland National Capital Park and Planning Commission - Patuxent River Park	\$ 1,250	Capital	Prince George's	Planting Native Trees to Mitigate Shoreline Erosion and Coordinate Outreach to Patrons	Patuxent River Park protects over 7,700 acres of land and wildlife along the Patuxent River. Over the last century, sedimentation in the Patuxent River has increased dramatically due to erosion and run-off caused by agriculture and urbanization of surrounding land. In this restoration project, Bald Cypress trees will be planted along shorelines, at campsites, to mitigate erosion. Additionally, signage will be used at three campsites to educate visitors about the site around them and conservation projects at the park. One site will be renovated with a tent pad. This project will restore shorelines and native plants.	20
Charles Herbert Flowers	\$ 5,000	Maryland	Prince George's		Charles Herbert Flowers High School intend to construct the Greenhouse project, expand its Conservation Landscaping project located behind the Charles Herbert Flowers High School close to the child development center and vegetable gardens at the side of the school building . The main objective of the landscape and the gardens is to reduce the surface runoff pollution and provide habitat for wildlife and also provide healthy vegetables that will serve the community. This is an ongoing project that started in April , 2017 and requires funding opportunities for completion. The green house will provide adequate native plant nurseries for the landscape/gardens. The PGDOE partnered with the school and provided 28 trees that were planted around the school's parking lot which was considered to be the most impervious land cover area. The trees require mulch for adequate and consistent maintenance.	27

Elizabeth Seton High School	\$	5,000	Maryland	Prince George's		<p>The LEAD (Learning, Engineering, and Design) Program provides a STEM-focused initiative for young women attending Elizabeth Seton High School. Students participate in a four-year cohort, culminating in a capstone project designed to support students in solving community-based problems.</p> <p>Through the proposed project, students are partnering with the Anacostia Watershed Society to learn stormwater management techniques on Seton's campus in Bladensburg, with seniors developing engineering projects to improve mitigation and prevent erosion on campus. The main objectives for LEAD participants include: 1) Pursuit of secondary education; 2) Pursuit of STEM-related field in college; and 3) Proficiency in 21st century technology skills.</p>	15
ShoreRivers	\$	30,000	Eastern Shore	Queen Anne's	River Friendly Community: Prospect Bay; Track 3: Outreach and Restoration	<p>River Friendly Community: Prospect Bay will implement 10 residential and 3 golf course conservation planting and rain storage practices, implement 3 workshops, and include a bus tour of completed projects in the Prospect Bay Country Club community in Grasonville, MD. This community of 320 residential homes and an 18-hole golf course drains directly to Prospect Bay and Greenwood Creek, tributaries of Eastern Bay in the Chesapeake Bay watershed. These projects will result in direct reductions in nitrogen, phosphorus, and sediment draining from the highly-fertilized golf course that will directly support Queen Anne's County Watershed Implementation Plan goals.</p>	50
Town of Centreville	\$	30,000	Eastern Shore	Queen Anne's	Centreville Wharf Restoration Project	<p>The Town of Centreville's request is for a planting restoration project at the Centreville Wharf Park located on Watson Road, Tax Map: 035H; Grid: 0012; Parcel 1303. Public access to tidal waters is a precious and rare commodity statewide and the Town envisioned a new Wharf Park in this historically valued area to open awareness of this resource and provide a safe and friendly place for all to enjoy. Funds provided through the Chesapeake Bay Trust would provide plantings and grasses to assist in the restoration of this property.</p>	43

ShoreRivers	\$	74,958	Eastern Shore	Queen Anne's	Queen Anne's County Stewards for Streams: Faith Based Conservation	PROJECT DESCRIPTION ShoreRivers proposes the expansion of the successful Stewards for Streams: Faith Based Conservation program to Queen Anne's County. The goal of this two year program is to engage and activate faith organizations of any denomination in environmental education to their congregations, and ultimately environmental stewardship action. Interfaith Partners for the Chesapeake and ShoreRivers will engage a minimum of ten congregations in an environmental engagement activity, and install four restoration projects to reduce stormwater runoff, increase native habitat, and, or reduce impervious surface. As faith organizations are pillars in their communities their stewardship will serve as a call to individual action.	15
St. Mary's College of Maryland	\$	4,500	Southern	Saint Mary's	Biological Control of kudzu, an invasive species, at St. Mary's College of Maryland	Kudzu is an aggressive invasive species found all across the United States, including at St. Mary's College of Maryland (SMCM). Research has shown that goats can be used as an effective biological control agent against kudzu. Consistent with SMCM's sustainability efforts, this student-designed project will employ goats to graze kudzu invading vegetation across the college campus. The goat grazing will eliminate enough foliage to allow college maintenance crews to remove crown roots and cut stems using small amounts of herbicide. Ultimately this project aims to manage an invasive species while educating the community about biological control.	20
Pickering Creek Audubon Center	\$	32,766	Eastern Shore	Talbot	Audubon Watershed Experience for Talbot County High School Teachers and Students	Pickering Creek Audubon Center will connect teachers and students from Talbot County Public Schools (TCPS) to their watershed through the Audubon Watershed Experience (AWE). AWE connects teachers and students to the Chesapeake Bay watershed through STEM learning experiences around the study of bird and fish populations. The project includes substantive teacher professional development, meaningful watershed experiences for all tenth grade students at TCPS concluding with a habitat restoration project developed by students and teachers. Teachers and students will interact with scientists in the restoration field from Audubon, Washington College, the NOAA Environmental Science Training Center, and other local resources.	250

Pickering Creek Audubon Center	\$	29,146	Eastern Shore	Talbot	Native Habitat for Habitat	Pickering Creek Audubon Center will work with homeowners, staff and volunteer leaders from Habitat for Humanity Choptank to increase their knowledge creating and maintaining Bay-friendly yards and how their actions affect their watershed and the Bay. We will work with homeowners to create native plant gardens at homesites in Talbot and Dorchester and engage Habitat volunteers and staff in the process through workshops and onsite consultations with homeowners to achieve goals. We will conclude the project by having two homeowners highlight their project through various means and share the successes and challenges of the project with neighboring Habitat chapters.	50
Tilghman on Chesapeake Community Association	\$	3,969	Eastern Shore	Talbot	Restoration of Island Club Preserve	PROJECT DESCRIPTION Ownership of a non tidal wetland site was transferred to the Tilghman on Chesapeake Community Association in 2019. For the previous 35+ years this site was mowed by the community developer. At its last meeting, the TOCCA Board named the site "Island Club Preserve" with the intention of transforming it to an area populated with native plants appropriate to the site. The objective is to restore the site to a point where it can perform its natural functions and meet the dual objective of providing a community amenity while at the same time providing education benefits to community residents and visitors.	24
ShoreRivers	\$	39,857	Eastern Shore	Talbot	Eastern Shore MWEE Academy	PROJECT DESCRIPTION ShoreRivers, in partnership with University of Maryland Center for Environmental Science (UMCES) Horn Point Laboratory, will host a one-year Eastern Shore MWEE Academy (Academy) to advance interdisciplinary environmental literacy throughout the Eastern Shore of Maryland by training a cohort of fifteen regional teachers in the framework, development, and implementation of Meaningful Watershed Educational Experiences (MWEE) indiscriminate of grade-levels and disciplines.	10

Eastern Shore Community Rowers	\$	977	Eastern Shore	Talbot	ESCR Supplies and Restoration Project	ESCR is an educational rowing organization dedicated to personal and environmental health for our community. We request funds foremost of which includes the cost of a used rowing shell (the core of our mission in putting more people on the water), as well as land clearing and restoration for the area we utilize for our program. The waterfront clearing and restoration is a large part of our commitment to our community program and will include machinery (donated), clearing and disposal (volunteers), as well as restoring the natural habitat of birds and especially indigenous bees needed to propagate native plants.	10
Town of Williamsport	\$	4,917	Western	Washington	Clean Up Day in Williamsport!	The Town of Williamsport will be partnering up with various organizations like the Boy Scouts, Williamsport Rotary Club and much more, on putting on an event "Spring Clean Up" in pursuit of tree planting, riparian zone trash clean up, mulching. Giving the community an opportunity to be engaged in giving back.	50
Highland View Academy	\$	4,750	Maryland	Washington		The project will integrate environmental education and outdoor learning experiences focused on conservation issues of the Chesapeake Bay Watershed. The project's objectives are: to give students authentic real-world experiences that will give meaning and enhance their learning in STEM subjects; give students valuable hands-on activities that will reinforce their learning; give students opportunities to learn environmental stewardship of our natural resources; and give students opportunities to participate in restoration projects on and off campus. Solar City is installing a solar field on campus, and we are planting native trees around it.	20

Maryland Coastal Bays Program	\$ 1,250	Eastern Shore	Worcester	The Development of a Groundwater Monitoring Program at MCBP Restoration Sites	PROJECT DESCRIPTION Sea level rise and saltwater intrusion are a growing threat to Maryland's coastal bays coastlines. To monitor saltwater intrusion and how it is impacting our wetlands, I will be installing 5 piezometers at Grey's Creek Nature Preserve along a transect to investigate and document any changes in salinity gradients. Additionally, MCBP is working towards completing a large-scale restoration site, named Ilia Fehrer Nature Preserve, which historically was a part of the Holly Grove Swamp, and then used as a pine monoculture for logging. Monitoring of this site will include 3 piezometers; at a restored section which will be compared to an unrestored section. I will create a monitoring plan to leave with MCBP so that the piezometers are accurately and sufficiently monitored long term as well as provide a baseline for the dominant vegetation and soil types.	120
Prettyboy Watershed Alliance, Inc.	\$ 47,272	Central		Implementing a behavior change campaign to recruit landowners to have riparian forest buffers planted in the Prettyboy Watershed	Using the behavior change plan developed under our 2014 grant, Prettyboy Watershed Alliance (PWA) seeks to implement and pilot test a riparian forest buffer recruitment strategy, emphasizing a "buffer ambassador" approach to reaching prospective participants. Doubling our recruitment rate, our goal is to recruit up to 27 landowners and plant up to 20 acres of buffers. We will carefully document all aspects of our campaign and share our results widely to enable other watershed organizations to replicate the successful aspects of our approach.	2500
The Nature Conservancy	\$ 1,230	Western		Red Spruce Monitoring and Release Project	PROJECT DESCRIPTION One of the primary goals of the TNC MD/DC Chapter is to increase conifer cover in western MD. For over 20 years, we have planted red spruce seedlings in western MD preserves, a species that provides rare, native habitat for a variety of wildlife and sequesters carbon from the atmosphere. As with any planting project it is important to monitor success, a protocol which I will be laying the foundation for through monitoring plots. I will also be releasing red spruce that are shaded by hardwood canopies, allowing them to accelerate their growth and become functional members of the ecosystem.	3000

Chesapeake Bay Foundation, Inc.	\$ 25,000	Western	Upper Potomac Stream and Wetland Program	CBF proposes to engage volunteers in hands-on restoration projects in Maryland's Upper Potomac watershed (Frederick County and Washington County). The project builds upon our strong history of successful collaboration with farming communities in Maryland to increase landowner adoption of innovative and effective agricultural best management practices that improve water quality, protect and restore wildlife habitat, and foster both community and landowner involvement in the process. Through the engagement of community and student volunteers, CBF will assist farmers in implementing riparian buffers and wetlands. This project also supports the cold water fishery, Trout, and their spawning habitats.	1520
Alliance for the Chesapeake Bay	\$ 5,000	Statewide	Project Clean Stream	Project Clean Stream (PCS) is an annual program organized by the Alliance that empowers thousands of volunteers, at thousands of cleanup sites across all 6 Bay watershed states and DC, with the opportunity to dig, plant, clean up trash, and discover how their everyday decisions can improve the health of the local waterways and the Bay. Through hands-on action and education, PCS develops lasting environmental stewardship by building strong personal connections between individuals and their local waterways.	300
Delaware Maryland Synod ELCA	\$ 18,980	Statewide	Reformation 500 Tree Planting - Part 2	PROJECT DESCRIPTION The Delaware Maryland Synod of the Evangelical Lutheran Church in America seeks to continue its initiative of planting at least 500 trees in 2017 and 2018 to celebrate the 500th anniversary of the Reformation. The trees will be planted on the 170 church properties across the Synod. In advance of the planting effort, we will conduct 5 outreach workshops around the state to provide education to our congregations and project partners on the value of trees to our natural environment and the Chesapeake Bay, how to properly install and maintain trees, and the spiritual connection trees have to our faith.	399

Delaware Maryland Synod ELCA	\$ 16,520	Statewide	Reformation 500 Tree Planting	<p>The Delaware Maryland Synod of the Evangelical Lutheran Church in America seeks to plant 500 trees in 2017 and 2018 to celebrate the 500th anniversary of the Reformation. The trees will be planted on the 170 church properties across the Synod. In advance of the planting effort, we will conduct 5 outreach workshops around the state to provide education to our congregations and project partners on the value of trees to our natural environment and the Chesapeake Bay, how to properly install and maintain trees, and the spiritual connection trees have to our faith.</p>	275
Interfaith Partners for the Chesapeake (IPC)	\$ 29,443	Statewide	Trees for Sacred Places: Cultivating Leaders	<p>This outreach project will build on the success of the Trees for Sacred Places program to engage faith communities in watershed restoration and train congregational leaders to facilitate ongoing green ministries at their faith communities. IPC and its partners will cultivate congregational leaders through in-person and webinar trainings and equip them to lead their congregations through a tree planting project. IPC will provide faith-based training and support to the congregational stewards, and will engage watershed organizations as technical partners for planning support and to lead planting activities.</p>	100
Endangered Species Coalition	\$ 10,000		Quincy Entrance and Woodland Improvement Project	<p>PROJECT DESCRIPTION</p> <p>The Rock Creek Songbirds project is a unique conservation and outreach initiative in Washington DC's Rock Creek National Park. Now in its seventh year, the Songbirds project has made significant progress in cooperation with the National Park Service, restoring habitat and engaging residents of one of the city's most diverse neighborhoods. The next step is the protection and expansion of a woodland adjacent to a neglected major entrance to the park – known informally as “Quincy alley” -- while enhancing public recreation space. The new Songbirds project will see the installation of a natural playground and picnic tables, planting of native trees, and regular programs to make the Quincy alley area a vibrant community and park space.</p>	30

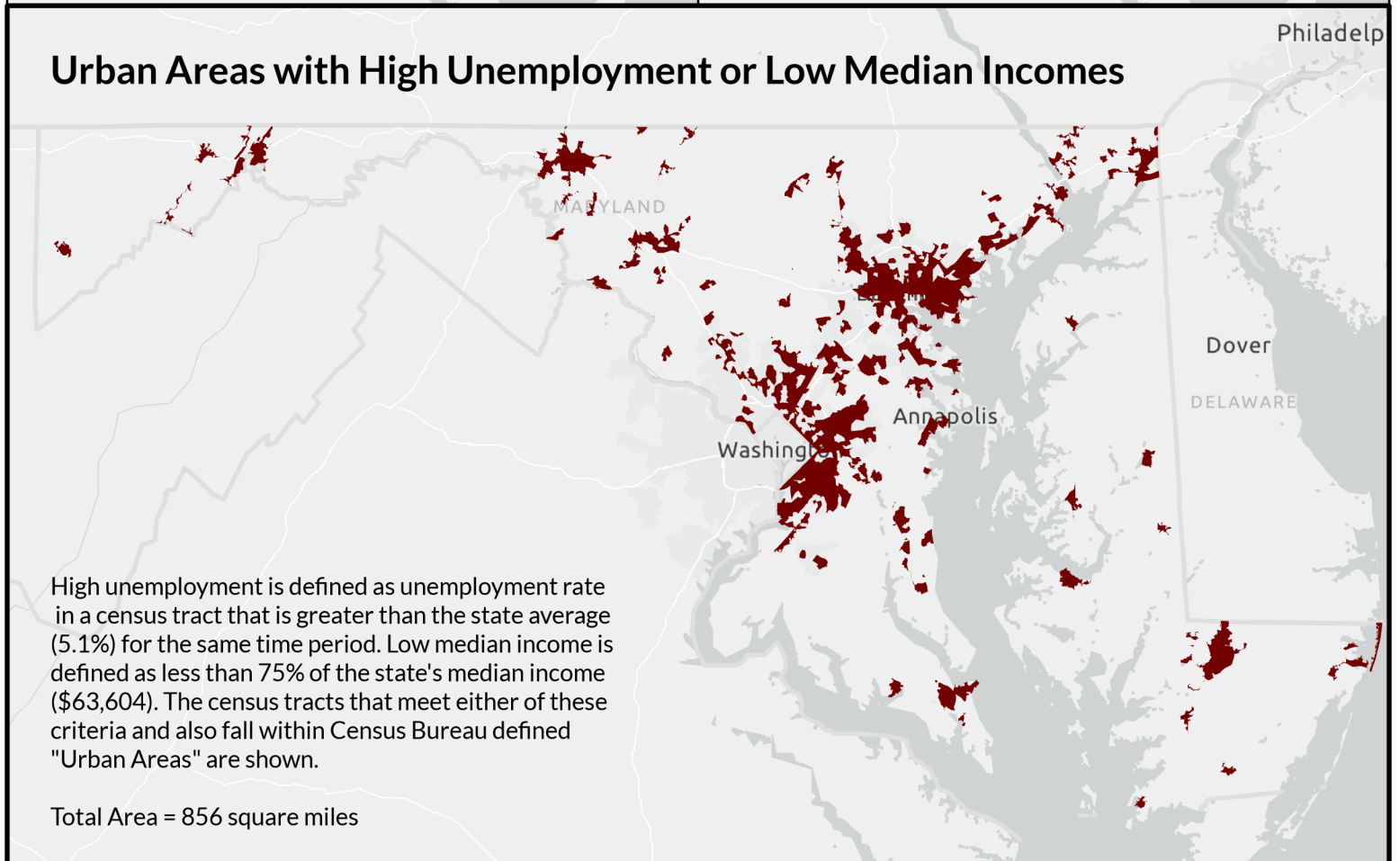
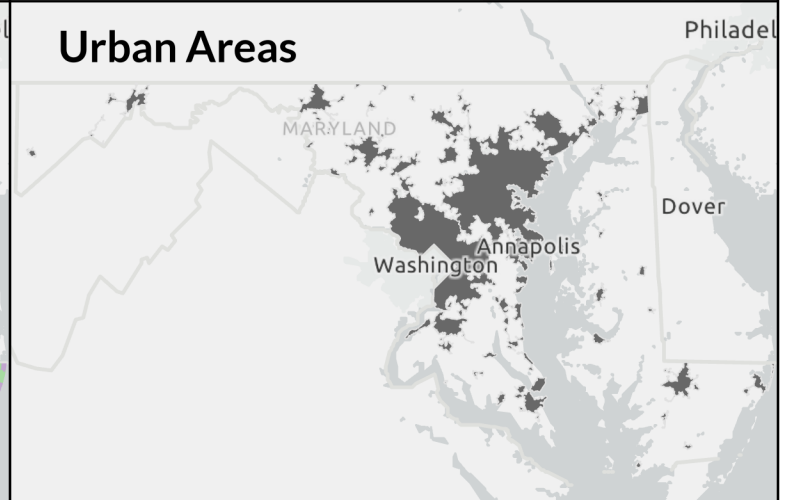
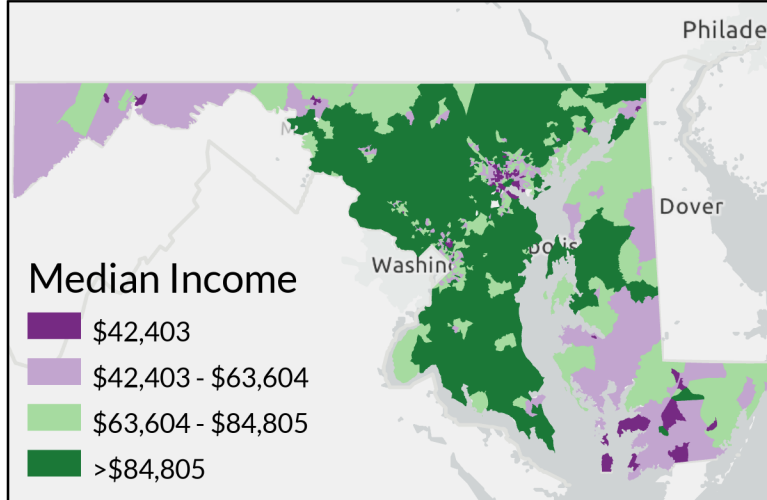
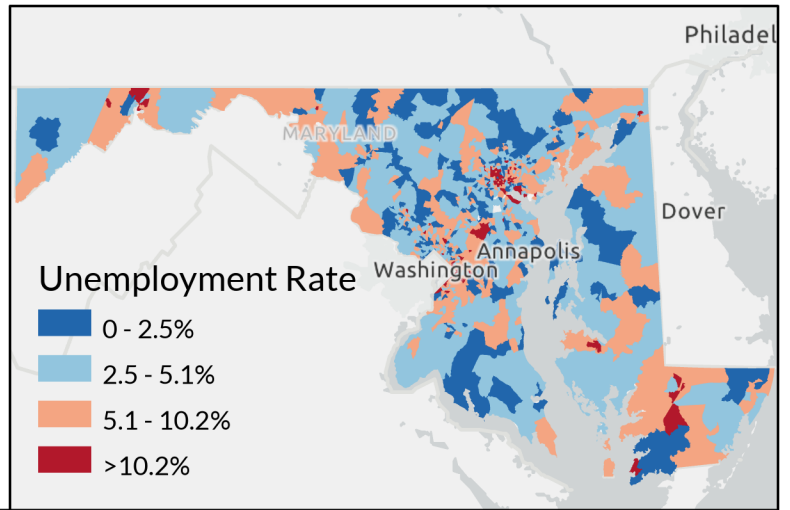
HB 583_CBF_SUP_Underserved Urban Areas.pdf

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Maryland Urban Areas With High Unemployment or Low Income

(2014 - 2019)



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CHESAPEAKE BAY FOUNDATION

Environmental Protection and Restoration
Environmental Education

House Bill 583

Climate Solutions Now Act of 2021

Date: February 28, 2020
To: Senate Education, Health, and Environmental Affairs Committee
Senate Budget and Taxation Committee

Position: Support
Contact: Robin Jessica Clark
Maryland Staff Attorney
rclark@cbf.org

Chesapeake Bay Foundation **SUPPORTS** HB 583 as a comprehensive and critical action by the State of Maryland to achieve net-zero greenhouse gas emissions by 2045. The bill will mitigate climate change and improve water quality with a goal to plant 5 million trees through State and private efforts by 2030.

HB 583 is a comprehensive approach reducing greenhouse gas emissions and mitigating the effects of climate change. It addresses emissions from sources including vehicles, buildings, and landfills. It acknowledges the need to accelerate greenhouse gas reductions to prevent catastrophic environmental consequences. It also acknowledges that disadvantaged communities and employees in fossil fuel industries will be disproportionately affected by some of the necessary adaptations to climate change.

Confronting climate change and its effects, including severe storms, warmer temperatures and sea level rise, supports the Chesapeake Bay's recovery

Climate change is affecting the Chesapeake Bay—adding more stress to a system still out of balance. The physical impact has long-lasting implications for its waters, wildlife, and watershed. The number of intense storms is on the rise, increasing soil erosion, sewer overflows, flooding, and polluted runoff. These activities dump nitrogen, phosphorus, and sediment into rivers and the Bay. As a result, our waters experience more dead zones and algal blooms. Larger than average inflows of fresh water threaten oysters and push other Bay-life out of their traditional habitats.

Average annual stream temperatures have increased by 1.1°F (.61°C) in the past six decades in the Chesapeake Bay watershed according to the U.S. Geological Survey (USGS). Warmer waters have a decreased capacity to hold dissolved oxygen, exacerbating the Bay's fish-killing dead zones and contributing to algal blooms. Rising water temperatures are stressing fish from the Bay's iconic striped bass to Pennsylvania's beloved brook trout. Temperature sensitive species are at risk, like eel grass, a food source for migratory waterfowl and important habitat for blue crabs. Like higher inflows of fresh water, significant changes in water temperature displace Bay species, impacting fishing.

Sea-level rise is exacerbated by land subsidence. This combination of processes in the Chesapeake Bay has resulted in approximately one foot of net sea-level rise in the Bay over the past 100 years—a rate nearly twice that of the global historic average. Thousands of acres of environmentally critical tidal wetlands and shorelines are threatened, not to mention susceptible cities and towns. In low-lying areas, storm surges combined with higher sea levels and increasingly erratic storm activity may create a “perfect storm” that will flood thousands of acres. Many of those areas are economically disadvantaged, and the combination of flooding and limited access to emergency facilities—facilities that might themselves be flooded—could be disastrous.

Maryland Office | Philip Merrill Environmental Center | 6 Herndon Avenue | Annapolis Maryland 21403 | 410 268-8816 | CBF.ORG

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 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 Bay and its resources.



CHESAPEAKE BAY FOUNDATION

*Environmental Protection and Restoration
Environmental Education*

5 million trees will help the State reach its greenhouse gas reduction goals and help the State meet its Watershed Improvement Plan climate goals

HB 583 sets out a goal for the State to plant 5 million trees by 2030 with 500,000 of those trees to be planted in underserved urban areas of the State. The 5 million tree goal represents a step forward for the State that complements and supports its achievement of the Greenhouse Gas Reduction Plan, the Phase III Watershed Implementation Plan, and needed additional reductions in nitrogen pollution required to address the impacts of climate change in Maryland's Watershed Implementation Plan.

The draft 2019 Greenhouse Gas Reduction Plan includes targets for tree plantings by the State by 2030 that when totaled reach about 5 million trees. However, many of those plantings would simply represent mitigation for trees cut for development or timber. HB 583 would increase the State's net forested acreage to help achieve the State's current goal of 40% reduction by 2030 and the accelerated reduction rate called for in this legislation.

The State's Phase III Watershed Implementation Plan relies in part on tree planting best management practices and other practices that could include tree plantings, offering the potential to plant more than 2 million trees by 2025. As HB 583's goal is tied to 2030, the 5 million tree initiative represents a near continuation of that pace for five additional years. This effort will help support the State's maintenance of water quality, even in the face of changing conditions of climate change.

By 2022 the State will likely need to address an additional 1.1 million pounds of nitrogen to account for the effects that climate change is already having on the Chesapeake Bay. The 5 million trees envisioned in this legislation could meet up to 40% of the State's responsibility – a strong and proactive contribution. An early investment in trees, as one of the lowest cost methods for reducing nitrogen pollution, could help defray additional costs to the State to address that approaching requirement.

The tree planting goal will be achieved through a combination of state, private, and nonprofit efforts

This legislation includes a goal for the state is not a mandate on the State to plant 5 million trees through its own efforts alone. It is a goal for Maryland to be achieved through State coordination, increased funding to existing State programs, leveraging federal opportunities, and through a new Urban Trees Program.

Achievement of the goal will be a joint effort. State agencies, federal partners and nonprofit efforts will contribute to its success. These include the Department of Natural Resources Forest Service, the Department of Agriculture, the Natural Resources Conservation Service and the Chesapeake Bay Trust. To support the State's work, the legislation directs funding from the Chesapeake and Atlantic Coastal Bays Trust Fund for a 5 million tree coordinator with the Department of Environment, and for technical assistance from the Department of Natural Resource Forestry Service.

The bill also organizes a Commission for the Innovation and Advancement of Carbon Markets and Sustainable Tree Plantings. The Commission will develop recommendations regarding the establishment of a Maryland-based carbon offset market to support the State's tree-planting goals. Carbon markets could continue tree planting progress even after the expiration of this initiative's eight-year timeline.

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Trees are one of the most cost-effective water quality filters of polluted runoff from agricultural lands and in developed areas

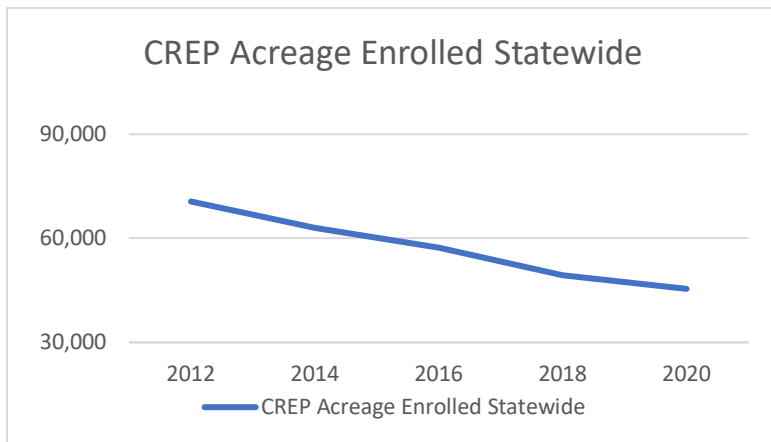
Tree plantings and forest establishment consistently rank at or near the top the list of the most cost-effective pollution reduction practices in urban and rural environments. An agricultural forest buffer is 3 times more cost effective than a soil conservation plan and 6 times more cost effective than a standard cover crop – important practices supported and cost-shared by the state at nearly \$25 million every year. An urban tree canopy planting is comparable in cost to replacing septic systems with public sewer, a practice actively promoted and funded by the Bay Restoration Fund. All of these strategies are key to meeting the state’s pollution reduction goals – but only trees lack adequate financial support and technical assistance.

The trees will be planted on farmland borders, on private property, and in underserved urban areas

Maryland can leverage additional federal funding to support forested buffers on agricultural lands that capture carbon and filter polluted runoff

HB 583 will provide additional funding to the Maryland Department of Agriculture for tree plantings under the federal Conservation Reserve Easement Program and other tree-planting programs on agricultural land. The legislation will also allow the Department the flexibility to increase the signing bonus for enrolling their property in 10-15-year easements with forested buffers in the Conservation Reserve Easement Program from up to \$250 per acre to up to \$1000 per acre.

The Conservation Reserve Easement Program currently represents a missed opportunity for the State to leverage federal lease payments to farmers to increase Maryland’s forested buffers. The program’s terms allow the State to enroll up to 100,000 acres, but acreage in the program has been dropping in the past ten year and now totals less than 50,000 acres.



Year	Acreage enrolled
2012	70,613 acres
2014	62,962 acres
2016	57,214 acres
2018	49,368 acres
2020	45,421 acres

This bill seeks to boost enrollment in CREP and, alternatively, support other similar tree plantings programs through the Department of Agriculture with \$2.5 million from the Bay Restoration Fund. The use of the Bay Restoration Fund is more than warranted here as forest buffers represent one of the most cost-effective methods of improving water quality. On a typical forest buffer easement, 200 trees are

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planted per acre, so a \$2.5M annual investment over 8 years could yield up to 4 million trees and add 2,500 acres to the State's CREP total a year, and 20,000 acres over the eight-year life of the program.

Additional funding for the State's existing Department of Natural Resources tree planting programs will help reach public, institutional and private landowners interested in establishing woodlands

HB 583 provides additional funding for the Department of Natural Resources for tree plantings accomplished through the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund, the Mel Noland Woodland Incentives Fund, and other forestry initiatives. The aim is to enhance current programs funding tree plantings on public and private lands, both through additional funding for the programs themselves, and up to 13 additional staff for the Forest Service.

There are several existing tree planting programs run through the Department of Natural Resources Forest Service. The Chesapeake and Atlantic Coastal Bays Trust Fund provides direct grants to local governments, institutions and non-profit organizations for tree plantings. The Woodland Incentive Program provides 65 percent funding for forestry practices on private, non-industrial forestland ownerships 5 - 1,000 acres in size. The Backyard Buffers program provides a free "buffer in a bag" to help get homeowners started in buffering their streamside. The bag includes 20-30 native tree and shrub bare-root seedlings, approximately 1 to 2 feet in height. A mix of various species, the seedlings are well suited to streamside conditions. Through TREE-Mendous MD, residents can use a coupon for discounts on trees on residential properties.

500,000 trees in urban areas will deliver a range of co-benefits to underserved areas of Maryland

The Climate Solutions Now Act directs that at least 500,000 of the 5 million trees named in the statewide goal should be planted in underserved areas of the State. These trees will be planted through the Chesapeake Bay Trust's partnerships with local neighborhood and community groups who apply for tree plantings. Maintenance costs are eligible expenditures under the program and grant from the Trust must include provisions for verification that plantings are being maintained as planned.

The definition of underserved is an urban area as defined by the US Census AND one of the following:

- Public housing, to be added through amendment
- Neighborhoods that were red-lined;
- Census tracts with high unemployment above state average; or
- Census tracts with median incomes representing 75% of the state average.

The most popular species for urban tree plantings currently include Oak (*Quercus* spp.), Red Maple (*Acer rubrum*), and American Sycamore (*Platanus occidentalis*). Trees like these lessen dangerous urban heat-island effects, increase property values, filter harmful airborne particulates that are common in urban environments, and reduce polluted runoff. The state has helped a number of cities and towns make plans to increase urban tree canopy so that neighborhoods have access to these benefits. HB 583 would provide a funding source to help implement these plans.

The 5 million tree goal will be supported by State coordination and technical assistance

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The State will ensure progress and organization of state and private efforts toward planting 5 million trees through a 5 million tree program coordinator in the Department of the Environment. The Coordinator will promote, facilitate, and align the State's efforts to achieve the five million tree planting goal. The Coordinator will report annually to the General Assembly's environmental committees with an update on progress. The Coordinator will be supported by the Chesapeake and Atlantic Coastal Bay Trust Fund.

The Chesapeake and Atlantic Coastal Bays Trust Fund will also support the addition of 13 contractors for the Department of Natural Resources Forest Service. These positions will help connect willing landowners to planting programs and help plan tree plantings. The estimated cost of the thirteen positions is based on last year's estimate of needs by the Department, at \$1.1M.

A Commission with membership from relevant State agencies and relevant stakeholders including the Maryland Association of Counties and Maryland Municipal league, the Commission on Environmental Justice and Sustainable Communities, statewide environmental advocates, the Farm Bureau, the University of Maryland, and the Maryland Forestry Foundation will help guide the work of the Coordinator and the State. The Commission for the Innovation and Advancement of Carbon Markets and Sustainable Tree Plantings will report by October 31, 2022 with a plan for tree planting, including guidelines for plantings to maximize carbon sequestration, mitigate urban heat islands, and improve water and air quality. The Commission will also investigate methods for seeking private capital for tree plantings and consider using Water Quality Revolving Loan Funds (WQRLF) to back Environmental Impact Bonds for tree plantings.

Funding dedicated from existing sources, including the Bay Restoration Fund and the Atlantic and Coastal Bays 2010 Trust Fund will support the program and then revert after eight years

HB 583 makes use of existing environmental funds to support the tree plantings goal. As the State is completing upgrades to its major wastewater treatment plants, there is funding available in the Bay Restoration Fund to support other needed water quality practices. This legislation would dedicate \$15 million per year for eight years to tree plantings, including \$2.5 million to the Maryland Department of Agriculture, \$2.5 million to the Department of Natural Resources and \$10 million to the Chesapeake Bay Trust for an Urban Trees Program. Funding for tree planting coordination within the Maryland Department of Environment and additional technical assistance support provided to farmers and landowners through the Maryland Forest Service would be funded by the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund at \$1.25 million annually for eight years.

The trees will be native species, sustainable, and properly maintained

HB 583 states that the 5 million trees will be native, sustainable species and will be maintained. The Commission for the Innovation and Advancement of Carbon Markets and Sustainable Tree Plantings will determine a list of native species for plantings and a plan for their planting and maintenance by October 31, 2022.

Past practice is an indication of the likely types of species that will be planted. When planting forested buffers for farmland, or afforesting rural lands, the Maryland Department of Agriculture, the Maryland Department of Natural Resources, and partners aim to plant at least ten species for each acre of planting

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for diversity. Various species of oak, sycamore and maple are common. Sycamores and maples are facultative, thriving in both wet and dry conditions. Various species of oaks are used to match the conditions. Fast growing sycamores have additional qualities, they thrive in stream areas and deer do not like to eat them. Researchers with the Department of Natural Resources have found that more than 80% of planted forest buffers thrive despite concerns over wildlife and weeds.¹

In developing urban planting projects, the Chesapeake Bay Trust works closely with neighborhood groups to determine the types of trees planted. The community applying for the planting project will discuss the possibilities, including the height of the tree at maturity, whether the tree will bloom or drop seeds or fruit, the amount of shade, and what options make the most sense considering the locations where the plantings are desired. The most popular species for urban tree plantings include oak, Red Maple, and American Sycamore.

The Chesapeake Bay Trust must include provisions for verification that tree-plantings in underserved urban areas are being implemented and maintained as planned in the grant agreement with the community group receiving the trees. Funding for the Department of Natural Resources tree plantings programs may only be used for tree plantings on private land if the landowner enters into a binding legal agreement to maintain the planted areas in the tree cover for at least 15 years.

Plantings through the Department of Agriculture must be for a term of 10 years or more under the Conservation Reserve Enhancement Program. All maintenance, such as mowing to control woody growth, is the responsibility of the participant and shall be performed according to guidelines that are prepared by Natural Resource Conservation Service and agreed upon in the conservation plan. Participants are responsible for controlling noxious and invasive weeds. All maintenance shall be conducted outside the primary nesting season (April 15 – August 15), except when necessary for spot treatment of weed problems. Approval of the FSA County Committee is required prior to conducting any maintenance during the primary nesting season. Maintenance payments are incorporated into annual rental payments.

CBF urges the Committee's FAVORABLE report on HB 583.

Enclosed:

Chesapeake Bay Trust tree plantings 2015-2020
Underserved urban census track mapping

¹ Koehn, Steven W., Maryland Department of Natural Resources Forest Service, [Riparian Forest Buffer Survival and Success in Maryland](#), April 2001.

HB583 Climate Solutions Now - Maryland LCV SUPPORT

Uploaded by: Coble, Kim

Position: FAV



MARYLAND LEAGUE
OF CONSERVATION VOTERS

February 11, 2021

Testimony in SUPPORT of House Bill 583: Climate Solutions Now Act

Dear Chairman Barve, Chairman Davis and Members of the Committees:

Maryland League of Conservation Voters

Lynn Heller, Board Chair
Maris St. Cyr, Vice Chair
Michael Davis, Treasurer
Hon. Virginia Clagett
Stuart Clarke
Candace Dodson-Reed
Verna Harrison
Melanie Hartwig-Davis
Ed Hatcher
Hon. Steve Lafferty
Bonnie Norman
Katharine Thomas

Kim Coble
Executive Director

30 West Street
Suite C
Annapolis, MD 21401

410.280.9855
mdlcv.org
marylandconservation.org

Maryland League of Conservation Voters strongly supports HB583 Climate Solutions Now Act and thanks Delegate Stein for his leadership on this Maryland LCV and environmental community priority legislation.

Every year the urgency of the climate crisis grows more pressing, and our window for taking the aggressive actions to mitigate against the worst effects grows shorter. It is no secret that Maryland's more than 3,000 miles of shoreline and more than 265,000 acres of low-lying land make our state one of the most vulnerable to sea level rise and the effects of increasingly violent weather events. As the United States re-enters the Paris Climate Accord, it is critical that Maryland shows leadership in climate policy, to demonstrate to the rest of the country what is possible. In 2020, the Maryland General Assembly was unsuccessful in passing any substantive legislation that would take meaningful steps to addressing this critical concern. It is essential that they do so now.

Other submitted testimony describes the full scope of policies proposed by The Climate Solutions Now Act. We would like to highlight three important initiatives that deserve special attention as we seek to reach the emission reduction mandate of 60% by 2030 and net-zero by 2045.

1. Charging the Commission on Environmental Justice and Sustainable Communities with determining what percent of Maryland's climate funding must be spent in overburdened, underserved communities that are disproportionately impacted by climate change emissions;
2. Planting 5 million trees, including 500,000 trees in underserved, urban communities;
3. Purchasing new zero-emission buses as the Maryland fleet turns over. We encourage you to reference our testimony for SB137, which duplicates the provisions outlined in this bill.

These components of the legislation are the most significant equity components of a bill grounded in the understanding that climate justice is environmental justice. Climate change disproportionately impacts many low-wealth communities and communities of color, including impacts to health, local environment, and income. This bill will directly assist these communities in four primary ways:

1. Reduce harmful carbon emissions in order to improve public health;
2. Ensure a portion of state climate funds are spent on environmental justice communities;
3. Help create jobs at all levels;
4. Invest in tree-planting, focusing on underserved urban communities

We strongly urge a favorable report on this essential bill.

HB583 Climate Solutions Now Sign-on.pdf

Uploaded by: Coble, Kim

Position: FAV

February 11, 2021

Testimony in SUPPORT of Senate Bill 583: Climate Solutions Now Act

Dear Chairman Barve, Chairman Davis, and Members of the Committees:

The undersigned organizations express their strong support for HB583: Climate Solutions Now Act and thank Delegate Stein for his leadership on this environmental community priority legislation.

Every year the urgency of the climate crisis grows more pressing, and our window for taking the aggressive actions to mitigate against the worst effects grows shorter. It is no secret that Maryland's more than 3,000 miles of shoreline and more than 265,000 acres of low-lying land make our state one of the most vulnerable to sea level rise and the effects of increasingly violent weather events. As the United States re-enters the Paris Climate Accord, it is critical that Maryland shows leadership in climate policy, to demonstrate to the rest of the country what is possible. The Climate Solutions Now Act puts us on this path, by advancing the following policies:

1. Increasing Maryland's greenhouse gas reduction mandate to 60% by 2030 and net zero by 2045;
2. Charging the Commission on Environmental Justice and Sustainable Communities with determining what percent of Maryland's climate funding must be spent in overburdened, underserved communities that are disproportionately impacted by climate change emissions;
3. Creating a Worker Transition work group that will convene leaders in labor, industry, and policy makers to make recommendations to protect fossil fuel workers;
4. Planting 5 million trees, including 500,000 trees in underserved, urban communities;
5. Increasing our annual energy efficiency gains from 2% a year to 3% a year;
6. Improving air quality monitoring at landfills;
7. Requiring new state buildings to be net neutral and require efficiency gains in large residential and commercial buildings;
8. Purchasing new electric buses as the Maryland fleet turns over;
9. Prohibiting highway widening and unproven carbon capture and storage technology as emissions reduction pathways in our state climate planning;
10. Requiring accurate accounting of methane impacts and the use of best available scientific information in our climate plans.

This legislation is grounded in the understanding that climate justice is environmental justice. Climate change disproportionately impacts many low-wealth communities and communities of

color, including impacts to health, local environment, and income. This bill will directly assist these communities in three primary ways:

1. Reduce harmful carbon emissions in order to improve public health;
2. Ensure a portion of state climate funds are spent on environmental justice communities;
3. Help create jobs at all levels;
4. Invest in tree-planting, focusing on underserved urban communities

We strongly urge a favorable report on this essential bill.

350 Montgomery County	Friends of Sligo Creek
Alliance for Livable Communities	Green Towson Alliance
Arundel Rivers federation	Greenbelt Climate Action Network
Assateague Coastal Trust	GreenGrace (Maryland Episcopal Environmental Partners)
Audubon Naturalist Society	GRID Alternatives Mid-Atlantic
Audubon Society of Central Maryland	Grow Home
Baltimore Blue+Green+Just	Hall's Choice Farm, Ltd
Baltimore Green Space	Howard County Climate Action
Baltimore Peoples Climate Movement	Howard County Conservancy
Baltimore Tree Trust	Indivisible Howard County
Bikemore	Interfaith Partners for the Chesapeake
Black By Nature	Interfaith Power & Light (DC.MD.NoVA)
Blue Water Baltimore	Ji'Aire's Workgroup
Cedar Lane Unitarian Universalist Church	League of Women Voters of Maryland
Environmental Justice Ministry	Maryland Campaign for Environmental Human Rights
CEPA	Maryland Climate XChange
Central Maryland Beekeepers Association	Maryland League of Conservation Voters
Chapman Forest Foundation	Maryland Legislative Coalition
Chesapeake Bay Foundation	Memorial Episcopal Church
Chesapeake Climate Action Network Action Fund	MLC Climate Justice Wing
Chesapeake Physicians for Social Responsibility	MOM's Organic Market
City of Annapolis	Mont Co Faith Alliance for Climate Solutions
Clean Air Prince George's	Multifaith Alliance of Climate Stewards
Cleanwater Linganore, Inc.	Multifaith Alliance of Climate Stewards- Frederick CO
Climate Change Working Group of Frederick County	National Aquarium
Climate Law & Policy Project	Nuclear Information and Resource Service (for a carbon-free, nuclear-free world)
Climate Reality Project Baltimore	Parks and People Foundation
Connecting the Dots	Patapsco Heritage Greenway
Creation Care Action & Advocacy of the Baltimore-Washington Conference of UMC	Pearlstone Center
Defensores de la Cuenca	Potomac Conservancy
Emmanuel United Methodist Church, Laurel	Preservation Maryland
Environmental Justice Ministry Cedar Lane Unitarian Universalist Church	
Friends of Gwynns Falls Leakin Park	
Friends of Quincy Run Watershed	

Prince George's Justice and Advocacy Council,
Archdiocese of Washington
Prince George's County Young Democrats
Public Justice Center
Quaker Voice of Maryland
Rachel Carson Council
Rock Creek Conservancy
Safe Healthy Playing Fields
Safe Skies Maryland
Severn River Association
ShoreRivers
Southern Maryland Fair Skies Coalition
Stony Run Friends Meeting (Quakers)
Strong Future Maryland
Sunrise Movement Howard County
Takoma Park Mobilization Environment Committee
The Biz Center Renewable Energy Incubator
Transition Howard County
Unitarian Universalist Legislative Ministry of
Maryland
Voices MD
Waterkeepers Chesapeake
WISE

BaltimoreCounty_FAV_HB0583.pdf

Uploaded by: Conner, Charles

Position: FAV



JOHN A. OLSZEWSKI, JR.
County Executive

CHARLES R. CONNER III, ESQ.
Director of Government Affairs

JOEL N. BELLER
Deputy Director of Government Affairs

BILL NO.: **HB 583**

TITLE: Climate Solutions Now Act of 2021

SPONSOR: Delegate Stein

COMMITTEE: Environment and Transportation

POSITION: **SUPPORT**

DATE: February 11, 2021

Baltimore County **SUPPORTS** House Bill 583 – Climate Solutions Now Act of 2021. This legislation would boldly update sustainability goals for the State of Maryland by establishing a plan for emissions and pollution reduction for decades to come.

We are currently seeing the effects of climate change unfold; wildfires are sweeping the west, polar ice caps are melting at alarming rates, and global temperatures are rising to unsustainable levels. Maryland, as a coastal state, faces an imminent threat. Atmospheric levels of greenhouse gases have risen several thresholds above levels set forth by climate experts due to human-driven emissions. If efforts are not undertaken to curb these trends and proactively address climate change, the effects on the planet we are already experiencing will pale in comparison with what future generations of Marylanders will have to contend with.

HB 583 is bold, effective, and a significant step towards a sustainable future. This legislation requires the State to achieve net-zero statewide greenhouse gases by 2045. Using sweeping measures such as replacing gas powered state vehicles with electric vehicles, planting 5 million trees, and promoting sustainable construction procedures, the bill implements a comprehensive plan for reaching its ambitious goal. The time to act on climate change is now, and Baltimore County supports legislation that seeks to further the fight at any cost.

Accordingly, Baltimore County requests a **FAVORABLE** report on HB 583. For more information, please contact Chuck Conner, Director of Government Affairs at cconner@baltimorecountymd.gov.

HB583 Testimony_FAV_Preservation Maryland.pdf

Uploaded by: Cowan, Eleanor

Position: FAV

Testimony of Elly Cowan

Director of Advocacy, Preservation Maryland

Before the
House Environment and Transportation Committee
February 11, 2021

Pertaining To: HB583, Climate Solutions Now Act of 2021

Support

On behalf of the staff and Board of Directors of Preservation Maryland, I thank you for the opportunity to provide testimony on the value of smart growth and preservation in Maryland. Through our Smart Growth Maryland program, Preservation Maryland advocates for a more environmentally and economically sustainable future that creates opportunities for all Marylanders through better development patterns.

SUPPORT FOR HOUSE BILL 583

Preservation Maryland supports HB583, Climate Solutions Now Act of 2021. This omnibus bill seeks to address the climate change crisis and environmental justice issues that face our state. The legislation will increase Maryland's greenhouse gas reduction requirements to 60% below 2006 levels by 2030 and net neutral by 2045. The bill would also task the Commission on Environmental Justice and Sustainable Communities to determine what percentage of all state funds invested in climate change must go to overburdened communities. The bill creates a work group comprised of IBEW, AFL-CIO, registered apprenticeships, construction laborers, and building tradespeople to make recommendations for workforce development and training for displaced fossil fuel workers. Finally, the bill will enact simple, effective policies to reduce and mitigate emissions including planting 5 million trees by 2030, with 10% to be planted in underserved urban areas of the state.

We are in the midst of a climate change emergency, with the urgency of the crisis growing every year. The opportunity to take the necessary aggressive actions to effectively mitigate the worst effects is dwindling. Maryland's more than 3,000

miles of shoreline and more than 265,000 acres of low-lying land make our state one of the most vulnerable to sea level rise and the effects of increasingly violent weather events, and we are already seeing the devastating effects all across our state. Additionally, this legislation is grounded in the understanding that climate justice is environmental justice, with climate change disproportionately impacting the health, environment, and income of many low-wealth communities and communities of color.

Maryland has an opportunity to demonstrate real leadership in climate policy and show the rest of the country what is possible. The Climate Solutions Now Act puts us on this path. Therefore, I respectfully urge a favorable report of HB583.

Contact: Elly Cowan, ecowan@presmd.org, 443-386-4609

CBT Testimony - HB 583.pdf

Uploaded by: Davis, Jana

Position: FAV



House Bill 583 (Delegate Stein) – Climate Solutions Now Act of 2021 Written Testimony

Date: February 11, 2021

Position: SUPPORT

Submitted to: House Environment and Transportation Committee

Submitted by: Jana Davis, Executive Director, Chesapeake Bay Trust

The Chesapeake Bay Trust supports its urban tree planting role outlined in HB 583. The Trust is a grant-making organization established by the General Assembly in 1985 and has administered similar programs in the past, such as the Green Streets, Green Jobs, Green Towns Initiative, a partnership with the U.S. Environmental Protection Agency and the Maryland Department of Natural Resources.

Project type is often left up to our grantees, and tree planting is strongly desired and often requested by many of our applicant communities. The reason: Tree planting in all communities - urban, suburban, and rural - has multiple positive impacts, and communities recognize these co-benefits:

Economic/Energy: Trees have economic benefits, reducing energy costs by providing shade

Economic/Commercial: Studies show that the aesthetic value of trees in business districts can increase revenue.

Livability: The shade provided by trees counters heat island effects in urban areas, and recent studies show a drop in crime in greened neighborhoods.

Physical and Mental Health: Trees and other green spaces, both urban and non-urban, have been shown to improve physical and mental human health¹²³⁴.

Improved health leads to longer lifespans and lower medical costs through preventative means, top of mind for many in these times of COVID. Urban greening projects may be one tool to combat health disparities in certain communities.

Climate: Trees are a sink for carbon dioxide, serving as a mitigation tool for climate change.

Water Quality: Trees uptake excess nutrients, serving as a water quality best management practice, so positive for local waters and the Chesapeake Bay.

Flooding: Trees uptake water, contributing to reduction of flood risk (Figure 1).



¹ Wolf KL, Robbins AS. 2015. Metro nature, environmental health, and economic value. *Environ Health Perspect* 123:390–398; <http://dx.doi.org/10.1289/ehp.1408216>

² South et al., 2018, Effect of Greening Vacant Land on Mental Health of Community-Dwelling Adults: A Cluster Randomized Trial. *JAMA Netw Open*. 2018;1(3):e180298. doi:10.1001/jamanetworkopen.2018.0298

³ White, M.P., Alcock, I., Grellier, J. *et al.* 2019. Spending at least 120 minutes a week in nature is associated with good health and wellbeing. *Sci Rep* 9, 7730. <https://doi.org/10.1038/s41598-019-44097-3>

⁴ Spending Just 20 Minutes in a Park Makes You Happier. Here's What Else Being Outside Can Do for Your Health. 2019. *Time* magazine <https://time.com/5539942/green-space-health-wellness/>.

Habitat: Trees provide habitat to many other species.

The economic return from health benefits alone as a result of greening projects have been shown in some models to exceed costs to implement them, creating a significant return on investment. We will explore whether other benefits listed above, such as carbon credits, can be used to supplement the revenue stream for these tree projects.



Figure 1: Impact of street tree planter boxes on flooding. Prior to this Chesapeake Bay Trust-funded urban greening grant, local business basements flooded. After the project, businesses report no basement flooding.

Over the past 5 years, the Trust has funded (with about 25 other funding partners who aggregate funds at the Trust for distribution, including Baltimore City, Prince Georges County, Montgomery County, Anne Arundel County, Harford County, Howard County, Charles County, City of Salisbury, City of Gaithersburg, the U.S. Environmental Protection Agency, the National Park Service, BGE, and more) **298 projects** led by over 200 unique entities that had a predominant or significant tree planting focus through grants to communities and schools. Those projects planted **140,133 trees total, 20,555 in underserved** areas, averaging \$264 per tree in underserved areas. The 298 projects were funded at **\$16.2m** (\$5.4 million in underserved areas). Approximately half of the funds from these awards were distributed to local businesses, such as nurseries to supply trees and contractors to plant them. Additional jobs at nonprofit entities are supported, and a total of **62,386 total people** were involved in the projects (volunteers, teachers, students), with **26,322 people of color** (42%).

The Trust can support only about a third of grant requests due to current funding levels, and outreach is tempered to available funding. We anticipate, therefore, that should more resources be available, more communities would access them.

The demand is there: About 100 local jurisdictions or communities across Maryland, from Cumberland to Cambridge and many in between, have either been working on or adopted tree canopy goals and have supported neighborhood nonprofits within them to help accomplish those goals. These urban tree canopy goals call for thousands of acres of additional trees to be planted: In Baltimore City alone, increasing from current levels of 28% to the 40% goal means an additional approximately 2400 acres are needed.⁵ Cumberland had 1200 acres of tree canopy in the urbanized area at last assessment, and had identified another 2000 urban acres where tree canopy could be planted⁶.

We believe that capacity of organizations will quickly grow to match the goals outlined in the bill.

⁵ <https://bcrp.baltimorecity.gov/forestry/treebaltimore/canopy>; <https://www.nrs.fs.fed.us/news/release/Baltimore-tree-canopy>

⁶ https://www.chesapeakebay.net/channel_files/22153/cb_utc_goals-progress.pdf

The science of implementing tree canopy projects exists: Various programs at the Maryland Department of Natural Resources⁷ and the EPA-coordinated Chesapeake Bay Program⁸ offer guidelines for implementing tree canopy goals.

About the Chesapeake Bay Trust

The Trust was created by the Maryland General Assembly in 1985 as a non-profit grant-making organization with a goal to increase stewardship and citizen engagement in the restoration of the state's local rivers, streams, parks, and other natural resources in diverse communities across the state, from the mountains of Western Maryland and the Youghiogheny watershed to the marshes of the Coastal Bays. The goal was to create an entity that could complement state agency work and reach large numbers of groups on the ground: schools, nonprofit organizations, faith-based institutions, homeowners associations, community and civic associations, and other types of groups.

The Trust invests in local communities and watersheds through grant programs and special initiatives and is known for its efficiency, putting 92 cents of every dollar into programs. The Trust has awarded over \$120 million through more than 12,000 grants and projects in every county in Maryland since 1985. We make 350-400 grants and other awards a year and have about 1,000 active grantees at any one time.

The Trust does not receive a direct state appropriation, and instead supported through revenue from the Chesapeake Bay vehicle license plate; half of the Chesapeake and Endangered Species Fund checkoff on the state income tax form; two new donation options through Maryland's online boating, fishing, hunting license system, one that focuses on veterans' rehabilitation; partnerships with federal, state, local agencies, family foundations, and corporate foundations; and individual donors.

The types of projects supported by the Trust include urban tree plantings, stream and park clean-ups, wetlands restoration, living shorelines, oyster seeding, local stream water quality monitoring, and outdoor educational experiences for children and adults. The Trust's programs reach about 80,000 K-12 students and 20,000 adult volunteers each year across the state. Due to its efficiency, the Trust has been rated with the maximum four-star rating by the nation's leading charity evaluator, Charity Navigator, for fourteen years, putting it in the top 1% of non-profits in the nation.

One of the Trust's basic tenants in its strategic plan is to engage under-engaged audiences in natural resources issues. Every individual in our area benefits from healthy natural resources, and in turn, every individual can help natural resources. Three under-engaged audiences of particular focus identified by our Diversity and Inclusion Committee are the faith-based sector, communities of color, and the human health sector. The Trust has seen much success: Over the past five years, the number of students, volunteers, and teachers of color match the demographics of Maryland. Close to 10% of our grants supported work at faith-based institutions of 13 different religions. We make grants for work at hospitals and other human health centers, but would like to do more. The funds generated from the program created in this bill will continue to support work with under-engaged audiences.

Thank you very much for the opportunity to present to the Education, Health & Environmental Affairs Committee. If you should have any questions regarding the Trust's testimony, please contact me 410-974-2941 x100 or jdavis@cbtrust.org.

⁷ <https://dnr.maryland.gov/forests/Pages/programs/urban/treecanopygoals.aspx>

⁸ https://www.chesapeakebay.net/documents/3b_Urban_Tree_Canopy_final.pdf;
https://www.chesapeakebay.net/documents/UTC_Guide_Final.pdf

MCYD Testimony in Support of Climate Solutions Now

Uploaded by: DeLong, Michael

Position: FAV



February 11, 2021

Montgomery County Young Democrats Testimony to House Environment and Transportation Committee in SUPPORT of HB 583 – *Climate Solutions Now Act*

Dear Chairman Pinsky and Members of the Committee,

My name is Becky Felker and I, in accordance with the Montgomery County Young Democrats, support HB 583, the Climate Solutions Now Act of 2021.

Globally, we have a critical choice to make that will determine the course of our future forever. Climate change is already here, and you all are the last generation that will be able to correctly change course towards a livable future for my generation. As a sixteen year old young woman, my generation will be the one facing the consequences if this bill does get passed. Maryland has the tools, resources and knowledge to take action right now and to be a leader and role model for other states by showing climate change is something we take seriously.

Maryland will be severely impacted by climate change. According to the [University of Massachusetts Amherst case study](#), Maryland's mean average temperature has increased by 2.1 degrees Fahrenheit since 1895- which is faster than the global rise in mean temperature, and for the past eighteen years, Maryland's annual mean temperature has exceeded the 20th-century average (Climate System Research Center (CSRC) University of Massachusetts Amherst). But it is not only humanity that will see repercussions if there is no action taken. The U.S. Geological Survey finds that average annual stream temperatures have increased by 1.1°F in the past six decades in the Chesapeake Bay watershed. This has led to the warmer waters not being able to hold as much oxygen- creating more fish killing zones and algal blooms. Even Maryland's own Blue Crab will have its habitat of eel grass put at risk.

This bill ensures Maryland will be part of the new green future by:

- Ensuring Maryland is in line with the current climate science by committing us to a 60% reduction in carbon emissions below 2006 levels by 2030 and to reaching **net zero emissions by 2045**

- Restructuring our approach to climate justice by mandating that a percentage of all future climate spending must go to disadvantaged communities in terms of climate change, which to be defined by experts and stakeholders

MCYD supports this bill because it has a multilateral approach to the many issues that climate change inflicts on Maryland. The Climate Solutions Now Act will take bold, necessary steps to help particular areas that suffer disproportionately from climate change like coastal regions or highly urbanized cities with lower quality air and steadily climbing temperatures. This bill will ensure that state vehicles are electrified, add five million native trees to Maryland to improve air quality, promote new “green” jobs, as well as keep existing jobs and improve the state’s current economic position.

International experts have urged action on climate change with increasing fervor in recent years for good reason: the consequences of staying the course will be highly dangerous. Here in Maryland we have a lot at stake, with nuisance flooding, high heat days and storm surges already regular occurrences. We have an opportunity to listen to scientists now while signaling to the nation that Maryland is ready to embrace the new green economy. There is no more time to delay on meaningful climate action.

I encourage a FAVORABLE report for this essential legislation.

Signed,
Rebecca (Becky) Jane Felker
240-994-0810
rfelker22@stoneridgeschool.org
Montgomery County Young Democrats

Climate Solutions Now HB 0583 CCAN AF_Testimony_1_

Uploaded by: DeMarco, Jamie

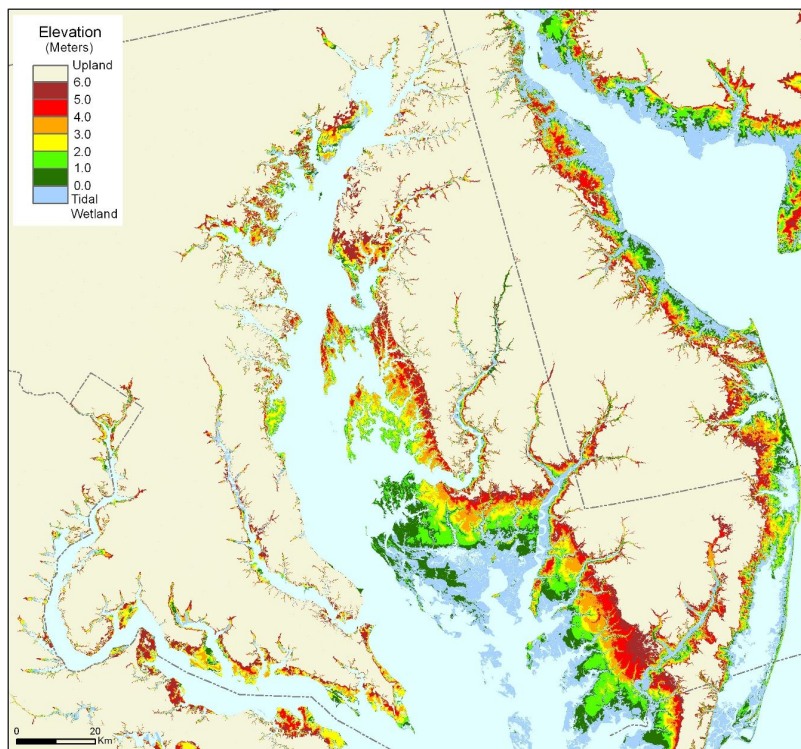
Position: FAV

**Testimony in Support of
Climate Solutions Now Act (HH 0583)
House Environment and Transportation and Economic Matters Committees
February 11, 2021**

**Jamie DeMarco, Federal and Maryland Policy Director
Chesapeake Climate Action Network Action Fund**

On behalf of the Chesapeake Climate Action Network Action Fund, I strongly urge a favorable report on SB 0414, The Climate Solutions Now Act of 2021.

Lao Tzu said that “If you do not change direction, you may end up where you are heading” and right now, Maryland is heading toward climate disaster. Last month [new satellite data](#) found that rates of melting ice around the world match the worst case scenarios from scientific modeling. [In those worst case scenarios](#), the oceans rise 8 feet by 2100. [The map](#) below shows that if we let this happen, then children born today will live to see Ocean City disappear beneath the waves.



Elevations of Land Close to Sea Level
Elevations are above spring high water, which is the average high tide during new and full moons, and approximately the inland boundary of tidal wetlands. This map is a general graphical representation of elevations in the area depicted, not designed to estimate the precise elevations at specific locations. Due to the use of a variety of data sources, the accuracy of this map varies. Elevations at specific locations are generally within 30 cm above or below the elevation depicted along the Eastern Shore south of Rock Hall and in Baltimore County, 75 cm in Anne Arundel County and the states of Delaware and New Jersey, and 150 cm elsewhere.
Source: J. G. Titus and J. Wang, 2008. "Maps of Lands Close to Sea Level along the Mid-Atlantic Coast". US Environmental Protection Agency.

To avoid this fate, the latest science put forward by the Intergovernmental Panel on Climate Change, which is the world's leading expert on the climate crisis and is composed of the top scientists from 35 countries, says that wealthy states in wealthy nations have to reduce their greenhouse gas emissions 60% by 2030 and have net zero emissions by 2045. Right now, Maryland's greenhouse gas reduction goal is 40% by 2030, and we don't have a binding goal after that. The goal we have set for ourselves is a milestone on the path to climate disaster. Maryland must do its part in the global effort to pull us off the worst case trajectory, and to do that we must pass the Climate Solutions Now Act.

Creating a cleaner economy will help solve climate change, and it will have immediate improvements in our air quality. A recent [Harvard study](#) found that even small increases in exposure to fossil fuel pollution make someone significantly more likely to die from COVID-19.

This legislation passed out of EHEA and B&T in 2020 with bipartisan support, and was on track for passage when COVID-19 ended the legislative session prematurely. It is cross filed in the House as HB 0583 and is introduced by Vice Chair Stein.

The Climate Solutions Now Act of 2021 will change our greenhouse gas reduction goals to be in line with the latest science, a 60% reduction by 2030 and net zero emissions by 2045. It will also require the state to put equity issues front and center when solving the climate crisis, by setting a percentage of all state funds spent to address climate change that must be spent in overburdened communities.

Below is a detailed list of all the provisions in the Climate Solutions Now Act:

Greenhouse Gas Reduction Goals

- Maryland must reduce our greenhouse gas emissions 60% by 2030 and achieve net zero emissions by 2045.
- MDE cannot use highway widening or unproven carbon capture and storage technologies when planning how to achieve these goals.

Environmental Justice:

- The Maryland Commission on Environmental Justice and Sustainable Communities must identify communities disproportionately impacted by the climate crisis and set a percentage of state funds spent on climate that must be spent in those communities.

Worker Justice:

- A new Work Group will convene labor, legislators, the Secretary of Labor's office, climate groups, and renewable energy companies to make policy recommendations for how to best serve fossil fuel workers in Maryland.

Buildings and Energy Efficiency:

- EMPOWER efficiency gains will be 3% every year, increased from 2% a year
- Buildings that receive at least 25% of their funding from the state must be net zero, with some exceptions for schools.
- New buildings with more than 20,000 square feet of roof space must be solar ready.
- A commercial or residential building with more than 25,000 square feet that undergoes a renovation that costs more than 50% of its assessed value, must reduce its energy use 40% below pre-renovation levels or 20% below what would be required for a new building. This regulation may be waived if the building will not recoup the costs through energy savings in 15 years.
- At least 1 new school in each local school system must be zero emission between now and 2030, and new schools that are not net zero must be solar ready.
- New commercial and residential buildings with more than 25,000 square feet will be required to be more energy efficient, and after 2033 they will be required to be net zero.
- Local jurisdictions will be allowed to enact stronger efficiency standards.
- Local jurisdictions will be required to conduct energy life cycle cost estimates for new buildings comparing the costs of using all electricity versus using combustion sources.

State Fleet:

- 50% of new government passenger vehicles must be zero emission starting in 2022, and 100% must be zero emission after 2025.
- All new contracts to purchase buses must be zero emission after 2023.

Tree Planting:

- Between 2022 and 2030 Maryland will plant 5 million trees, with 500,000 of those trees to be planted in urban areas that have been historically redlined or are economically disadvantaged.
- Increase the signing bonus paid to farmers who enroll in the Conservation Reserve Enhancement Program by up to \$1,000 per acre.
- A grant program will be created to fund community groups planting trees in underserved urban areas through the Chesapeake Bay Trust.
- A work group will target the best locations for tree plantings to maximize environmental benefits and determine the best way to leverage private funding.

Funding:

- In any year where the Strategic Energy Investment Fund receives more than \$50 million, then the funds over \$50 million but not more than \$20 million will be spent to implement this bill. To be clear, the bill does not take away from any of the existing SEIF funding percentages, it only uses funds that are above and beyond the usual annual budget for SEIF.
- Every year between 2022 and 2030, \$15 million from the Bay Restoration Fund will be used to enhance existing Department of Natural Resources and Department of Agriculture programs and create a new Urban Tree Planting program. As one of the most cost-effective practices to reduce water pollution, tree plantings are a worthy application of Bay Restoration Funds remaining following the Sattre's completion of upgrades at major wastewater treatment plants.

Miscellaneous:

- At landfills where aircraft observations of methane leakage exceed the ground level emission data by more than 25%, The Department must investigate the difference.
- Community solar projects on rooftops, parking lots, or brownfields that primarily benefit low income households are exempted from personal property tax.
- MDE must calculate the social cost of carbon emissions.

Thank you for your careful consideration, and we urge a favorable report on SB 0414.

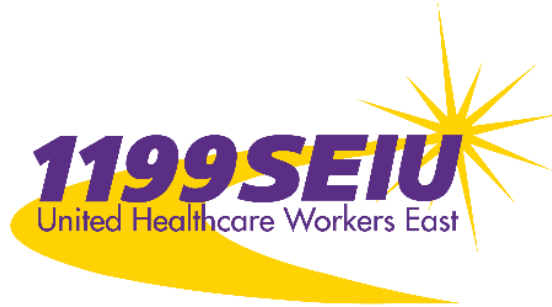
CONTACT

Jamie DeMarco, Federal and Maryland Policy Director
Jamie@chesapeakeclimate.org (443) 845-5601

HB0583 1199SEIU Favorable Testimony Climate Soluti

Uploaded by: DUMAIS, BRIG

Position: FAV



Testimony
Climate Solutions Now Act of 2021, HB 0583
Position: FAVORABLE

Members of the Environment and Transportation Committee,

My name is Brig Dumais and I am a Political Organizer with 1199SEIU United Healthcare Workers East. 1199 is the largest healthcare workers union in the country. We represent 10,000 members in hospitals and Long-Term Care facilities across Maryland alone. Our union supports the Climate Solutions Now Act of 2021 because lowering Greenhouse Gas emissions is critical for protecting our planet, a necessary public health measure, and will ensure a just transition to Green Energy for fossil fuel workers.

It is no secret that burning fossil fuels is one of the leading contributors to climate change. Public health experts agree that as climate change continues to warm the planet, we are at even higher risk of severe pandemics like COVID19 in the future. As permafrost melts at alarming rates, dormant viruses and bacteria can awaken and expose people to more illnesses. There have been recent discoveries of the 1918 Spanish Flu, the Bubonic Plague, and Smallpox being released from melting permafrost.

Lung damage and other chronic health conditions were a problem for fossil fuel workers even before COVID19, and the pandemic has made those problems worse. A recent study from Harvard University found that people who live and work in areas with high levels of air pollution, particularly from burning fossil fuels, are at a significantly higher risk of having severe complications or dying from COVID19. When healthcare facilities become overcrowded due to preventable illnesses, like those caused from being exposed to increased air pollution, it is harder for our members to provide the high-quality care each patient deserves.

This Climate Solutions Now Act of 2021 is not only an opportunity to protect the environment and public health, it will also benefit workers themselves by requiring a much-needed collaboration between the environmental and labor movements. We all share the values of having clean air to breathe *and* steady employment for building trades workers. This bill forms a taskforce to recommend safety nets for workers in industries with high fossil fuel emissions so they can transition to clean energy industries that will not threaten their health while allowing them to remain employed. These recommendations could include, but are not limited to, workforce development opportunities for re-training displaced workers, early retirement packages, creating new jobs, and more.

The time to act to significantly reduce our greenhouse gas emissions is now. Please vote yes on the Climate Solutions Now Act of 2021 this session for the sake of protecting workers, public health, and our planet.

Respectfully,

Brig Dumais
Political Organizer
1199SEIU United Healthcare Workers East
443-243-2078, brigitte.dumais@1199.org

Legislative Testimony 583.pdf

Uploaded by: Elliott, Richard DeShay

Position: FAV

Legislative Testimony:
HB583

I strongly support Delegate Stein's HB583 to help Maryland combat climate change with proactive policies.

**RICHARD
ELLIOTT**
FOR MARYLAND

By Authority: Rich Elliott For Maryland Keanuu Smith-Brown, Campaign Chair Christian Hillian, Treasurer

HB 583 - MoCo - CE (GA 21).pdf

Uploaded by: Elrich, Marc

Position: FAV



OFFICE OF THE COUNTY EXECUTIVE

Marc Elrich
County Executive

February 9, 2021

TO: The Honorable Kuman P. Barve
Chair, Environment and Transportation Committee

FROM: Marc Elrich
County Executive

RE: HB 583 – *Climate Solutions Now Act of 2021* – Support

I am writing to express my support for House Bill 583. This bill requires the State to reduce greenhouse gas emissions (GHG) by 60% from 2006 levels by 2030 and achieve net-zero GHG by 2045. The bill establishes a Net-Zero School Loan Fund which would assist in the construction of schools that meet net-zero energy requirements and establishes a Commission on Environmental Justice and Sustainable Communities focused on addressing GHG emission in disproportionately affected communities. In addition, the bill establishes a workgroup to address workers affected by the downsizing of the fossil fuels industry, establishes energy conservation requirements for new buildings, and establishes a goal of planting and helping maintain in the State 5,000,000 sustainable trees by 2030.

In 2017, the Montgomery County Council declared a climate emergency calling on all levels of government to “initiate a massive global mobilization to restore a safe climate and build a sustainable economy” and “transform the climate by reducing greenhouse gas emissions by 80% by 2027 and reaching 100% elimination by 2035 and initiate large-scale efforts to remove excess carbon from the atmosphere.” The provisions in this bill will assist the County as it seeks to achieve its target of eliminating greenhouse gas emissions entirely.

For the aforementioned reasons, I support House Bill 583 and respectfully request a favorable report.

cc: Members of the Environment and Transportation Committee

Testimony HB 0583_Ferretto 21_0209.pdf

Uploaded by: Ferretto, Lisa

Position: FAV

LISA M. FERRETTO, AIA, LEED AP BD+C, WELL AP, Eco-Districts AP, GGP

February 9, 2021

Delegate Kumar P. Barve
Chair, House Environment and Transportation Committee
Room 251
House Office Building
Annapolis, Maryland 21401

Re: Letter of Support for HB 0583, Climate Solutions Now Act of 2021

Dear Chairman Pinsky and members of the EHEA Committee;

Thank you for the opportunity to provide testimony in support of House Bill 0583, the Climate Solutions Now Act of 2021. Last session, this bill was known as SB926 /HB1425 and passed both senate committees and never made it to the House due to Coronavirus.

I am a sustainability architect and advocate, and am a member of both the AIA, American Institute of Architects, as well as USGBC, the U.S. Green Building Council. I served as a member of the MD Green Building Council (MDGBC) for three years and am now currently a Sustainability Commissioner for Baltimore City.

The Climate Solutions Now Act, is bill that ensures Maryland is a partner and a leader in Sustainability. It acknowledges the interconnected issues and strategies involved in undertaking climate change - buildings, transportation, site, and most importantly, the people. This bill requires a 60% reduction in greenhouse gas emissions by 2030 and net zero emissions by 2045. These goals work towards the targets of the newly reentered Paris Climate Agreement as well as those set by Architecture 2030 and adopted by the AIA.

Building operations account for 28% of the annual global greenhouse gas emissions, and if you consider the impact of building materials and construction, that number jumps to about 40%, ([Architecture 2030](#)). This bill will require all new buildings to be solar ready and energy efficient. The energy efficiency reduction targets step up with each energy code cycle and reaches zero energy by 2033. Major renovations will also have two paths to reduce energy consumption. All new State buildings will be required to be zero energy and each school district will be on a path to have one zero energy school. This aligns with what our neighboring states are also requiring for public projects. To assist with any potential additional cost of reaching zero energy for schools, there will be a no interest net zero school loan paid back with the energy cost savings of the school. This bill also provides provisions for property tax exemptions, updates to the utility energy savings program, and clarifies and restores the intent of the High Performance Building Act by closing the funding loophole and removing unnecessary language.

In addition, HB 0583 addresses the climate connections to transportation and site. The transportation sector accounts for 23% of the annual global greenhouse gas emissions and this bill requires that the State's fleet will be 100% zero emissions by 2030. The bill also requires landfill air monitoring, and the planting of five million trees by 2030 with a certain percentage required to be in urban areas.

The Climate Solutions Now Act also recognizes the crucial link with social environment and communities. The bill talks of the social cost of carbon and sets up a Just Transition and Retaining Working Group. It sets new goals for the Commission on Environmental Justice and Sustainable Communities. It requires a report

on jobs and training needed as well as “recommendations to address environmental justice concerns.... [to] build climate equity and resilience within communities disproportionately affected by climate change.”

As a sustainability architect and advocate – I am excited about HB 0583, the Climate Solutions Now Act, and the positive impact this bill will have. It ensures that Maryland is doing its part to meet the climate targets needed; holds the State accountable; and protects our State’s finances, the natural environment, and most importantly, the people.

I look forward to the favorable passing of this bill as *Now* is the time to *Act on Climate Solutions*.

Sincerely;

A handwritten signature in black ink that reads "Lisa M. Ferretto". The signature is written in a cursive, flowing style.

Lisa M. Ferretto, AIA, LEED AP BD+C, WELL AP, Eco-Districts AP, GGP

HB583_Testimony_QuakerVoice.pdf

Uploaded by: Finch, Molly

Position: FAV



February 9, 2021

Testimony in SUPPORT of HB 583 – *Climate Solutions Now Act*

Dear Chairman Stein and Members of the Committee,

Quaker Voice of Maryland supports HB583, the Climate Solutions Now Act of 2021.

Globally, we are at a juncture that will determine the course of our future forever. Climate change is here, and we are the last generation that will be able to change the course of the earth towards a livable future for all. We have the tools, resources and knowledge, and leadership to take action right now.

This bill ensures Maryland will be part of and provide leadership towards the new green future by:

- Ensuring Maryland is in line with the current climate science by committing us to a 60% reduction in carbon emissions below 2006 levels by 2030 and to reaching net zero emissions by 2045
- Restructuring our approach to climate justice by mandating that a percentage of all future climate spending must go to “disadvantaged” communities in terms of climate change, a term to be defined by experts and stakeholders
- Ensuring that labor voices are represented in our planning process, and that jobs benefit those who need them most
- Taking several immediate steps to reduce emissions, such as planting 5 million native trees by 2030, electrifying state vehicles, requiring several net neutral buildings and mandating energy efficiency increases

Quaker Voice was formed by Quaker Meetings throughout Maryland to give Maryland Quakers a more effective voice in state-level issues that speak to our values. Our faith as Quakers is entwined with our commitment to stewardship of the Earth and care for our natural resources. We see how the destruction of these resources creates inequality, destroys community, affects health and well-being, leads to war and erodes our integrity. We are all responsible for the care of our planet Earth. We love this world as God’s gift to us all. As citizens of the United States and Maryland, we understand that we represent the wealthiest of the world’s population. As such, we understand the obligation as well as the opportunity that we have to take action towards reducing the rate of destructive climate changes and at the same time invest in clean energy production, healthier communities, green infrastructure, and transportation that is not reliant on carbon producing vehicles.

For many years scientists around the globe have been urging action on climate change with increasing alarm regarding the rate of change that is now at a crisis level. Here in Maryland we have a lot at stake, with nuisance flooding, high heat days and storm surges already regular occurrences. Maryland State agencies have begun the work of establishing foundations from which we may respond to and mitigate the impact of this change. However, we must move towards a policy of halting and preventing further harm. We have an opportunity to listen to scientists now while signaling to the nation that Maryland is ready to embrace the new green economy. There is no more time to delay on meaningful climate action.

We encourage a FAVORABLE report for this essential legislation.

Signed,

Dona Sorce

Working Group Member, Quaker Voice of Maryland
dyesorce@gmail.com // quakervoice.md@gmail.com

Testimony on HB583 Climate Solutions Now2021 JG.pd

Uploaded by: Gingold, Janet

Position: FAV

Feb 9, 2021

Testimony in SUPPORT of SB 414 – *Climate Solutions Now Act*

Dear Chairman and Members of the Committee,

I support HB583, the Climate Solutions Now Act of 2021.

We just can't keep putting greenhouse gases into the atmosphere faster than natural processes can remove them. The California wildfires and extreme precipitation events here in Maryland in 2020 have shown that climate change is not some abstract threat to the distant future. It is here, now. We urgently need a just transition to clean energy and we need to invest in adaptations to make our communities more resilient. Because climate change won't wait for us to solve our problems of with pandemic, social inequity, economic dislocation, we must address all of these problems simultaneously to build better, more just and sustainable systems for the future.

The Climate Solutions Now act of 2021 will contribute to this effort by

- Ensuring Maryland is in line with the current climate science by committing us to a 60% reduction in carbon emissions below 2006 levels by 2030 and to reaching net zero emissions by 2045
- Restructuring our approach to climate justice by mandating that a percentage of all future climate spending must go to "disadvantaged" communities in terms of climate change, a term to be defined by experts and stakeholders
- Ensuring that labor voices are represented in our planning process, and that jobs benefit those who need them most
- Planting 5 million native trees by 2030 to sequester carbon and mitigate heat and flooding
- Electrifying state vehicles
- Increasing energy efficiency in buildings

International experts have urged action on climate with increasing fervor in recent years for good reason: the consequences of staying the course will be highly dangerous. Here in Maryland we have a lot at stake, with nuisance flooding, high heat days and storm surges already regular occurrences. We need to heed those warnings of scientists now and embrace the new green economy. There is no more time to delay on meaningful climate action.

I urge you to send a FAVORABLE report for this essential legislation.

Sincerely,

Janet Gingold, MD MPH
13107 Whiteholm Drive
Upper Marlboro, MD 20774
301-814-1223
jgingold3@gmail.com

HB 583 Climate Solutions Now Act .pdf

Uploaded by: Glenn, Shari

Position: FAV



TESTIMONY TO HOUSE ENVIRONMENT AND TRANSPORTATION COMMITTEE

HB 583 – Climate Solutions Now Act

POSITION: SUPPORT

BY: Lois Hybl & Richard Willson, Co-Presidents

DATE: February 11, 2021

The League of Women Voters is a nonpartisan organization that works to increase understanding of major public policy issues and influence public policy through education and advocacy. Action on climate change is based on the League's position to support comprehensive legislation to control climate change, and support for predominant reliance on renewable resources. We are at a critical point that will determine the course of our future forever.

This bill ensures Maryland will be part of the new green future by

:

- Ensuring Maryland is in line with the current climate science by committing us to a 60% reduction in carbon emissions below 2006 levels by 2030 and to reaching net zero emissions by 2045
- Restructuring our approach to climate justice by mandating that a percentage of all future climate spending must go to "disadvantaged" communities in terms of climate change, a term to be defined by experts and stakeholders
- Ensuring that labor voices are represented in our planning process, and that jobs benefit those who need them most
- Taking several immediate steps to reduce emissions, such as planting 5 million native trees by 2030, electrifying state vehicles, requiring several net neutral buildings and mandating energy efficiency increases

In Maryland we have a lot at stake, with nuisance flooding, high heat days and storm surges already regular occurrences. There is no more time to delay on meaningful climate action.

The League of Women Voters Maryland encourages a FAVORABLE report for this essential legislation.

testimony HB583 .pdf

Uploaded by: Goembel, Luke

Position: FAV



February 9, 2021

Testimony in SUPPORT of HB 0583 – Climate Solutions Now Act

Dear Chairman Pinsky and Members of the Committee,

Dr. Luke Goembel, scientist/beekeeper, supports HB0583, the Climate Solutions Now Act of 2021.

Pollinators worldwide have suffered devastating losses over the past thirty years or so. There is no doubt that climate change has contributed to the runaway colony collapse beekeepers are experiencing. Scientists believe increasingly irregular flowering seasons and extreme winters interfere with pollinators' ability to survive by delaying the forage process, causing malnutrition and possible mortality. Ask any Maryland beekeeper: record-breaking numbers of spring rainy days, record breaking cold snaps that destroy buds on flowering trees and the extraordinary number of 'hot' days in winter that cause bees to break cluster and consume honey are wreaking havoc on our bees. Just googling "climate change and bees" yields a multitude of studies that give insight into the problem. "Climate change reduces the abundance and diversity of wild bees, study finds" [USDA funded study published in 2021], bumblebees are going extinct as temperatures and precipitation increase beyond what they can tolerate ["Discovering the limits of ecological resilience", published in Science, 2020], and many more reports indicate that climate change is a major factor in the decline of pollinators.

Why should we care about the decline in bees? The United States Department of Agriculture has determined that pollination is responsible for one-third of every bite we eat. I whole-heartedly support HB0583 as a step in the right direction to help undo the harm we do to pollinators and secure our food supply.

Luke Goembel, Ph.D.

Vice President, Central Maryland Beekeepers Association
vp@centralmarylandbees.org, 443-465-3863

Central Maryland Beekeepers Association (CMBA)

Contact us at: Info@CentralMarylandBees.org

Meeting at: Oregon Ridge Nature Center, 13555 Beaver Dam Rd. Cockeysville, MD 21030

CMBA is a 501 (c) (3) Educational Tax Exempt organization

2021 HB0583 (SB0414).pdf

Uploaded by: Goldstein, Mathew

Position: FAV



Secular Maryland

<http://www.secularmaryland.us>

smd@secularmaryland.us

February 11, 2021

The Honorable Paul G. Pinsky
Education, Health, and Environmental Affairs Committee
2 West, Miller Senate Office Building
Annapolis, MD 21401

RE: SUPPORT HB0583 (SB0414) Climate Solutions Now Act of 2021

Chairman and Members of the Committee:

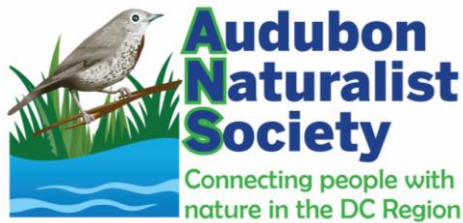
Secular Maryland appeals to our lawmakers to enact new laws to tackle climate change now. Being rational requires following the empirical evidence wherever it takes us. Climate warming denialism is an attack against rationality that needs to be unequivocally opposed. This bill responsibly confronts this serious problem by setting a greenhouse gas emissions reduction goal of 60%, an increase over the current goal of 40%, a 5 million additional trees (10% in underserved areas) goal, and a 100% electric state fleet of cars and busses goal, by 2030. It establishes a union workgroup to recommend workforce training and career pathways for displaced fossil fuel workers. It creates stringent energy efficiency measures for building construction.

Trees help reduce air pollution while also mitigating urban heat island that result from buildings and roads absorbing sunlight's heat more than natural landscapes. Air pollution is a health problem. People who live and work in areas with high levels of air pollution are significantly more likely to die from COVID-19, for example. Transportation currently accounts for 40% of Maryland's greenhouse gas emissions. We're are losing prime agricultural cropland along the eastern shore because of saltwater intrusion resulting from climate change.

HB583 - Climate Solutions Now Act - ANS - FAV.pdf

Uploaded by: Guitarra, Denisse

Position: FAV



February 9, 2021

Written Testimony for [HB583](#)- Climate Solutions Now Act of 2021
Position: Favorable
Hearing Date: February 11, 2021

Submitted by Denisse Guitarra

Maryland Conservation Advocate, Audubon Naturalist Society (ANS)

Dear Environment and Transportation and Economic Matters Committees,

For 124 years, Audubon Naturalist Society has inspired people to enjoy, learn about and protect nature. We thank the Senate Budget and Taxation Committee for the opportunity to provide testimony for HB583 - Climate Solutions Now Act of 2021.

As we navigate today's public health, social, and economic crises, it is critical to support the passage of HB583 as it is a sustainable well-rounded legislative solution. This legislation will ensure that Maryland meets its greenhouse gas reduction goals by cutting back emissions to 60% by 2030 and ensures that we are on a path to becoming carbon neutral by 2045. It includes policies to reduce carbon emissions from two of the largest sectors of carbon emissions: buildings and transportation. Furthermore, this legislation has the environment in mind as it proposes the best nature-based solution to combat climate change, planting 5 million native sustainable trees by 2030. Trees provide countless ecological services such as flood prevention, carbon sequestration, air and water purification, and reduction of urban heat island effects. These services cannot easily be replaced by built infrastructure, and it will always be much more expensive to try to do so.

If there is one golden remark about HB583, it would be its priority to place environmental justice at its core. This legislation ensures that vulnerable communities are both empowered and take action on climate change. It will give authority to the Commission on Environmental Justice and Sustainable communities to decide what percent of all state funds invested in climate must be spent in overburdened communities. Additionally, there are provisions requiring that 500,000 of the 5 million trees will be prioritized and planted in underserved urban communities across the state.

ANS supports HB583 this legislation because we have no time to delay on meaningful climate action. People and the environment are already experiencing the effects of climate change from heat waves, flooding, and storm surges. ANS encourage a FAVORABLE report for this essential legislation. On behalf of ANS and our 28,000 members and supporters, we recommend that the Senate Budget and Taxation Committee supports the passage of HB583.

Sincerely,
Denisse Guitarra
MD Conservation Advocate
Audubon Naturalist Society

Woodend Sanctuary | 8940 Jones Mill Road, Chevy Chase, Maryland 20815 | 301-652-9188

Rust Sanctuary | 802 Childrens Center Road, Leesburg, Virginia 20175 | 703-669-0000

anshome.org

Climate Solutions Now NAACP Testimony.pdf

Uploaded by: Hartwell, Staci

Position: FAV



Committees: Environment and Transportation/Economic Matters
Testimony on: HB 583
Position: Favorable

On behalf of the Maryland chapter of the NAACP, I strongly urge a favorable report on HB 583, the Climate Solutions Now Act. The bill is aptly named because we cannot wait another year to start reducing our emissions.

Fossil fuels are driving disparities in the COVID-19 pandemic. A recent Harvard study found that very small increases in exposure to pollutants from fossil fuel combustion causes someone to be significantly more likely to die from COVID-19. This is one of the many reasons why black Americans are twice as likely to die from COVID-19 than white Americans. After all, black Americans are 79% more likely to live near industrial pollution sites than white Americans.

Even before the pandemic, fossil fuel pollution was driving racial disparities in health outcomes. For example a black child is 500% more likely to die from asthma than a white child. The bottom line is that fossil fuel pollution contributing to the deaths of black people every day and we need to act Now. Not next year.

The Climate Solutions Now Act requires the state to reduce greenhouse gas emissions 60% by 2030 and have net zero emissions by 2045. This will coincide with a reduction in the co-pollutants that are causing these health disparities.

The Climate Solutions Now Act will not only improve the air in black communities, but it will also plant trees. This bill plants 500,000 trees in urban communities that have been historically redlined or are economically disadvantaged. Two thirds of all the funding to plant these trees will go to these communities. Planting these trees will improve home values, and help protect urban communities from ever worsening heat waves caused by the climate crisis.

This bill directly works to undo some of the impacts of environmental racism, and it also ensures that all future climate legislation will address inequities. The Climate Solutions Now Act requires the Commission on Environmental Racism and Sustainable Communities to set a percentage of all state funds spent to address climate change that must go to underserved, burdened communities.

As the Climate Solutions Now Act emphasizes, climate justice is racial justice. I urge a favorable report.

Climate Access Fund CSN testimony 02_11_2021.pdf

Uploaded by: Heller, Lynn

Position: FAV



February 11, 2021

SUPPORT House Bill 583: Climate Solutions Now

Chairman Barve, Chairman Davis, and Members of the Committee:

The Climate Access Fund strongly supports HB 583, Climate Solutions Now, and we thank Delegate Stein for his leadership on this issue.

My name is Lynn Heller. I'm the founder and CEO of the Climate Access Fund, a statewide nonprofit Green Bank that is focused on reducing the electricity bills of low-income households through access to community solar. The Climate Access Fund uses low-cost debt and a guaranty fund to incentivize community solar developers and their investors to serve more low-income households than they otherwise would.

The Climate Access Fund supports the Climate Solutions Now Act because we believe climate change is an urgent threat to Marylanders and the state needs to take action to reduce its impacts, especially on underserved communities. More specifically, we strongly support the portion of the bill that extends the property tax exemption for community solar systems that serve LMI customers. This tax exemption will encourage solar generation in communities that are burdened by environmental pollutants and help provide financial assistance to those LMI households. It is truly a win-win-win scenario for the state.

As many of you know, Maryland's community solar pilot program is in its fourth year, though due to a variety of delays, most projects are just now coming on line. Most of these projects serve market-rate customers and are located on 10-12 acres of land, because project economics work best in these scenarios. Projects serving majority low-income customers, and projects located on land that has already been developed (rooftops, parking lots, landfills, etc.) tend to cost more and typically don't benefit from the economies of scale that large ground mounted projects do.

The Climate Access Fund is trying to change that. We raise below-market debt, guaranty capital, and other types of financing from public and philanthropic sources (including the Maryland Energy Administration). We offer this attractive financing to solar developers who are committed to expanding community solar access to low- to moderate- income ("LMI") communities across the state and who meet our bill savings requirements.

The Climate Access Fund is focused in particular on developing rooftop projects located in or near underserved communities. We're currently working on a project located on the rooftop of a school in East Baltimore. Students' families (as well as faculty and staff at the school) who qualify as LMI will receive a 25% discount on their electricity bills, and will be given an



opportunity to invest in the solar asset itself for as little as \$100, enabling them to earn an attractive financial return over time.

This kind of local participation and ownership works best when a project is located in the community, most likely on a rooftop. Yet even with the Climate Access Fund's flexible capital, this rooftop project will not be possible without the proposed personal property tax exemption included in HB 583. The project's margins are simply too thin to withstand the tax. The financial benefits that this project and others like it across the state can bring LMI families – *by using private capital* – are significant. We estimate that the electricity bill savings alone generated by the school project would amount to a total of \$700,000 over the lifespan of the solar project (25 years), or close to \$200 per year for 140 LMI households. The majority of these savings would likely be reinvested in the local economy.

The Fiscal Note for HB 583 accurately states that the actual revenue decrease resulting from the proposed tax exemption will vary by personal property tax rate and will “depend(s) on the number of systems located in each jurisdiction that meet the requirements of the bill.” As someone who is immersed in LMI community solar project economics, I can assure you that even with the proposed tax exemption, these smaller LMI community solar projects are challenging enough that the total number of systems – and thus the fiscal impact on local jurisdictions -- is likely to remain low. Yet the benefits to LMI families and their communities, over a generation, will be substantial.

The Climate Access Fund urges a favorable report on HB 583, Climate Solutions Now.

It is my understanding that the Solar Democracy and Equity Collaborative, of which the Climate Access Fund is a member, intends to file a letter of support for the proposed community solar personal property tax exemption.

Thank you.

Lynn Heller, CEO
Climate Access Fund Corporation
lynn@climateaccessfund.org
(410) 371-6276

HB 0583 Chesapeake Bay Commission Written Testimon

Uploaded by: Hoffman, Mark

Position: FAV



CHESAPEAKE BAY COMMISSION

Policy for the Bay • www.chesbay.us

Written Testimony

Bill Number/Title: HB 583 / Climate Solutions Now Act of 2021
Committee: Environmental and Transportation
Hearing: February 11, 2021
Position: Favorable

Background

The Chesapeake Bay Commission is a tri-state legislative commission created by law in Maryland, Pennsylvania and Virginia to advise the members of the three general assemblies on matters of watershed-wide concern. Its fundamental purpose is to assist each assembly to develop legislation and policies that foster the collaborative and practical restoration of the Chesapeake Bay and its watershed.

Position

The Commission supports HB 583. The impacts of climate change continue to increase the challenge of restoring the Chesapeake Bay Watershed. The Chesapeake Bay Program models currently project that nitrogen loading will increase Bay-wide by approximately 6 million pounds annually due to climate change looking out to the TMDL deadline in 2025. For Maryland, this translates to 1.14 million pounds *above and beyond* the 6.2-million-pound reduction already required to achieve clean water. These impacts are projected to increase over time post-2025. Each jurisdiction must work to incorporate additional conservation practices into their two-year workplans to address the additive loads due to climate change.

HB 583 also includes specific provisions to increase urban and rural tree planting. Reforestation, forest buffers and urban tree canopy all offer cost-effective opportunities to reduce nutrient and sediment pollution for each sector. Forested landscapes produce the lowest nutrient loading of any cover type within the Bay watershed; by increasing the number of trees and forest cover, dual benefits can be achieved – carbon sequestration and the reduction of nutrient loading to the Bay.

hb583, climate solutions now 2-11-'21.pdf

Uploaded by: Hudson, Lee

Position: FAV



Delaware-Maryland Synod
Evangelical Lutheran Church in America
God's work. Our hands.

Testimony prepared for the
Environment and Transportation Committee
&
Economic Matters Committee
on
House Bill 583
February 11, 2021
Position: **Favorable**

Mr. Chairmen and members of the Committees, thank you for the opportunity to testify on behalf of wise stewardship of natural resource. I am Lee Hudson, assistant to the bishop for public policy in the Delaware-Maryland Synod, Evangelical Lutheran Church in America. We are a faith community of congregations in three ELCA synods, located in every part of the State.

Sustainability is a measurable standard we advocate for energy production and consumption, within our community and in public life. We have supported expanding renewable sources in the Maryland energy portfolio since 2002. Time has validated that commitment. Renewables are competitive on cost, less expensive if environmental detriment is calculated, and not subject to commodity price pressures. And they do not produce greenhouse gas.

Greenhouse gas emissions are surpassing what the known environment can tolerate. Climate, food, safety, civic and economic life are at risk, here and around the globe. The human community must rapidly employ policies to diminish catastrophic consequence. The cost of doing nothing, or little, already exceeds the cost of slowing the rate of planet warming. That calculation only gets worse from now on.

We continue to support accelerating the rate at which renewables are brought to the Maryland energy market. Increasing renewables will lower energy cost by scaling new generation capacity. It can slow the rapid rate of earth warming now altering weather, oceans, and geography. Consumers, communities, and earth's climate all benefit.

We support **House Bill 583** because it accelerates the measure and the rate at which these sources must count in Maryland's energy market; also, because it contemplates a public program of carbon sequestration; and because it will lower energy demand through efficiency and conservation effects. We implore a favorable report.

Thank you for this hearing.

Lee Hudson

Climate Solutions Act of 2021 HB 583.1 (1).pdf

Uploaded by: Hummel, Lani

Position: FAV

We Need to Speak for the Trees

I am writing in support of the Climate Solutions Now Act of 2021, HB 583.

I bought my house for the trees...those in my yard, my neighborhood, my community, and along Forest Drive. Tall, stately, old-growth trees that made me feel as if I was living in a nature preserve. Trees that would enable me to realize a life-long dream of hosting my own bird sanctuary.

For several years, I lived the peaceful existence I had dreamed of in the cool shade of trees with a growing population of birds filling the air with their songs. At the height of the spring season, I deployed 17 bird feeders to accommodate my avian visitors.

Then, the developers arrived. Swaths of forests were replaced by one building after another. It soon became apparent that Forest Drive is destined to become a stretch of unending concrete, glass, and asphalt, changing the character of my neighborhood forever. To add insult to injury, the developers made no efforts to preserve any trees on the building sites and planted very few trees to replace the many that they removed.

With such a massive loss of habitat, my bird sanctuary has become an avian ghost town. I now deploy only 2 bird feeders. The bird songs I love so much have been replaced by traffic noise.

In addition to habitat for birds, trees are one of the most effective and least expensive means of fighting climate change. We cannot continue to remove them with impunity. Science tells us that the pace of climate change is accelerating. In order to mitigate its worst effects, we need to plant many more trees than are destroyed each year. And, we have to act NOW to have any hope of not passing along a world of nightmares to our children and grandchildren.

Lani Hummel

Annapolis, MD 21403

443-699-4214

Climate Solutions Act of 2021 HB 583.1 (1).pdf

Uploaded by: Hummel, Lani

Position: FAV

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Lani Hummel

Annapolis, MD 21403

443-699-4214

Climate Solutions Now Act HB0583.pdf

Uploaded by: Jaudon, Judy

Position: FAV

I am testifying in support of the Climate Solutions Now Act HB0583. I have deep concerns that the climate crisis facing our state and county is not being addressed with necessary urgency. I am seeing our children's future jeopardized by the crisis unfolding before us. The science of climate change is clear – as is our lived experience. Rising waters in the county, sunny day flooding, high temperature in the summer and erratic weather is now commonplace.

I believe the science and anticipate that our elected officials will act with the necessary urgency this moment calls for. We cannot waste more time. Globally, we are at a critical choice-point that will determine the course of our future forever. Climate change is already here, and we are the last generation that will be able to course correct towards a livable future for all.

I have no doubt that the state of Maryland has an important national role to play – and can be a leader on climate action. We have the tools, resources and knowledge to take action right now.

This bill ensures Maryland will be part of the new green future by:

- Ensuring Maryland is in line with the current climate science by committing us to a 60% reduction in carbon emissions below 2006 levels by 2030 and to reaching net zero emissions by 2045
- Restructuring our approach to climate justice by mandating that a percentage of all future climate spending must go to “disadvantaged” communities in terms of climate change, a term to be defined by experts and stakeholders
- Ensuring that labor voices are represented in our planning process, and that jobs benefit those who need them most
- Taking several immediate steps to reduce emissions, such as planting 5 million native trees by 2030, electrifying state vehicles, requiring several net neutral buildings and mandating energy efficiency increases

International experts have urged action on climate with increasing fervor in recent years for good reason: the consequences of staying the course will be highly dangerous. Here in Maryland, we have a lot at stake, with nuisance flooding, high heat days and storm surges already regular occurrences. We have an opportunity to listen to scientists now while signaling to the nation that Maryland is ready to embrace the new green economy. There is no more time to delay on meaningful climate action.

I encourage a FAVORABLE report for this essential legislation.

Signed,

Judy W. Jaudon
District 33, Severna Park
judyjaudon@gmail.com

HB 583 Climate Solutions Now Act of 2021 (Favorabl

Uploaded by: Kerr, Cait

Position: FAV

Thursday February 11, 2021

TO: Kumar Barve, Chair of House Environment & Transportation Committee; Dereck Davis, Chair of House Economic Matters Committee; and Committee Members

FROM: Caitlin Kerr, The Nature Conservancy, Conservation & Climate Policy Analyst

POSITION: Support HB 583 Climate Solutions Now Act of 2021

The Nature Conservancy (the Conservancy) supports HB 583 offered by Delegate Stein. HB 583 seeks to increase Maryland's emissions reduction goals to 60% by 2030 and sets the target of a carbon-neutral economy by 2045, presenting us with an opportunity to once again demonstrate our state's ambition and strong commitment when it comes to approaching the threat of climate change head-on. The legislation also creates a goal of planting 5 million native sustainable trees by 2030, with 500,000 of those trees to be planted in urban areas on the frontlines of climate change and impacted by systemic injustices. This goal will be accomplished through state agency programs and nonprofit efforts. Co-benefits of trees, forests, and canopy include economically valuable services like carbon dioxide sequestration, water filtration, flood mitigation, recreational spaces, heat reduction, air quality improvement, and wildlife habitat.

Nature is the climate solution hiding in plain sight. By sustainably managing, restoring and protecting forests and other lands worldwide, we can cost-effectively capture up to 11 billion metric tons of greenhouse gas (CO₂e) emissions globally per year by 2030. These natural climate solutions (NCS) also protect biodiversity, restore watersheds, and provide sustainable livelihoods. The Conservancy led the foundational science on NCS¹ and we know that intense collaboration between frontline communities, governments, large and small non-governmental organizations (NGOs), and corporations is essential to achieve the transformational change that is necessary to combat climate change. The Conservancy has shown that natural climate solutions, including sustainably managing, restoring, and protecting forests and other lands, can provide a third of the global solution to climate change by 2030.²

In addition to carbon sequestration, urban trees also provide important public health benefits. In Baltimore City, temperatures reach up to 21°F hotter than in surrounding rural areas. By 2050, the city is estimated to experience five times as many dangerous heat days with a heat index over 105°F as we did at the start of the century. These impacts are not limited to cities; across Maryland, we average ten days a year when heat exceeds dangerous levels. This number is predicted to rise to forty days annually by 2050. Extreme heat can worsen existing illnesses, posing severe threats to vulnerable individuals. It can also cause mental and physical stress, heat-related illnesses, and sometimes deaths. Shaded surfaces can be up to 20-45°F cooler than peak temperatures of unshaded surfaces. Evaporation and transpiration processes in plants can reduce peak temperatures in the area by 2-9°F.

The Conservancy commends Delegate Stein for continuing to raise the bar for Maryland's climate commitments and advancing natural climate solutions that can provide valuable environmental, economic, and public health co-benefits for years to come.

Therefore, we urge a favorable report on HB 583.

¹ <https://www.pnas.org/content/114/44/11645>

² <https://www.nature.org/en-us/what-we-do/our-insights/perspectives/natural-climate-solutions/>

MACS 0208 Climate solutions now 2021 house testimo

Uploaded by: Koob, Michael

Position: FAV



Multi-faith Alliance of Climate Stewards (MACS)

Of Frederick County

C/o Middletown United Methodist Church

7108 Fern Circle

Middletown, MD 21769

Michael Koob, Steering Committee Member

February 9, 2021

Testimony on HB 583 –

HB 583: Climate Solutions Now Act

Environmental and Transportation Committee

Position: Favorable

Multi-faith Alliance of Climate Stewards (MACS) of Frederick County supports HB 583.

Congregations of many faith traditions all across Frederick County are taking action on the climate crisis because we are heartsick knowing that our climate pollution is hurting our neighbors, here and throughout the world.

It is simply not just that all of us, and especially communities of color, our elderly, and our young people, have paid the price for that pollution. Marylanders have paid for dirty energy with our health. We've paid when a disrupted climate exacerbates storms and brings flooding, like the damage to our roads and community organizations' facilities in the past five years.

That's why people of faith are taking action-installing solar panels on houses of worship and buying clean energy for our sacred spaces, planting trees in our communities to clean our air and absorb climate pollution, and changing our transportation habits by riding public transit and buying electric vehicles.

In houses of worship across our county, clergy and lay leaders are sharing the message that another world is possible, The Climate Solutions Now Act is a way, here in Maryland, to take a meaningful step towards making that vision more real.

Faith communities are acting for our common home, for our neighbors, and for a clean energy economy. We call on our legislators to do the same.

We urge the committee to give HB 583 a favorable report.



testimonyfinalhb583climatesolutions now

Uploaded by: L. DuBois, Gwen

Position: FAV

[LETTERHEAD OR LOGO OF YOUR BUSINESS OR ORGANIZATION]

CHESAPEAKE PSR

PHYSICIANS FOR SOCIAL RESPONSIBILITY

Testimony in SUPPORT of HB 583 – *Climate Solutions Now Act* *Environment and Transportation*

Dear Chairman Pinsky and Members of the Committee,

Chesapeake Physicians for Social Responsibility is statewide evidenced-based, organization of over 700 physicians, other health professionals and supporters, that addresses the existential public health threats to life on this planet: the climate crisis and the presence of nuclear weapons, We advocate for public policy that addresses these threats informed through the lens of racial justice and equity. As an organization founded by physicians, we understand that prevention is far superior to treatment in reducing costs; death, illness, injury, and suffering.

This bill ensures Maryland will be part of the new green future by:

- Ensuring Maryland is in line with the current climate science by committing us to a 60% reduction in carbon emissions below 2006 levels by 2030 and to reaching net zero emissions by 2045
- Restructuring our approach to climate justice by mandating that a percentage of all future climate spending must go to “disadvantaged” communities in terms of climate change, a term to be defined by experts and stakeholders
- Ensuring that labor voices are represented in our planning process, and that jobs benefit those who need them most
- Taking several immediate steps to reduce emissions, such as planting 5 million native trees by 2030, electrifying state vehicles, requiring several net neutral buildings and mandating energy efficiency increases

The evidence of climate change is on our doorsteps. Rising seas caused by Climate Change result in more frequent flooding especially in [Annapolis where flooding events](#) are likely to occur 360 x a year by 2040. Dorchester County, presently the 4th largest county expected to be 14th by 2100 [as nearly half the county turns to open water](#). After 1000 rains occurred twice within 2 years, sirens now warn Ellicott City residents after heavy rains.. If emissions continue to rise, mean sea-level in Maryland will likely [rise 2-4 feet by 2100](#). Statistics confirm what Marylanders already know- our summers are heating up and lasting longer. Extreme heat events have increased by more than 100% between the 1980’s and the 2000’s when compared to the 1960s-1970s, a rapid rise that is unprecedented. In addition to all the problems that occur because of this there are specific effects on the health of our citizens particularly our most vulnerable populations.

Patients now suffer more seasonal allergies from plants such as ragweed whose pollen seasons have lengthened with rising temperatures. Levels of pollutants like ozone are higher and put air

quality in the unhealthy zone more often with heat. People with chronic lung conditions have more serious challenges on Code Red, bad-air days. In April 2016 the "[Maryland Climate and Health Profile Report](#)" from the Maryland Department of Health and Mental Health Hygiene and University of Maryland School of Public Health noted that extreme heat was associated with heat-related hospitalization especially in Baltimore, increased risk of salmonella infections especially on the Eastern shore and Bay coastal area, hospitalizations from asthma especially in Caucasian children, and heart attacks especially in those over 65 and in non-Hispanic blacks. All of these examples are only expected to increase by 2040. Increases in illness and hospitalization increase healthcare costs. Public health research has also demonstrated that small temperature changes can lead to the emergence of serious insect borne diseases not previously seen in Maryland as well as an increase in the incidence of known vector borne diseases notably Lyme Disease.

[The 4th National Climate Assessment from 2019](#) noted that "the health and wellbeing of Americans are already affected by climate change, with adverse health consequences projected to worsen with additional climate change. Climate change affects human health by altering exposures to heat waves, floods, droughts, and other extreme events: vector-, food-, and waterborne infectious diseases; changes in the quality and safety of air, food and water and stresses to mental health and well-being"

The 2019 US call to Action on Climate Health and Equity a Policy Action Agenda noted climate change is a Health Care **Emergency**. This call to Action was signed onto by more than 70 major medical groups. Including The AMA, ACP, AAF, American Academy of Pediatrics to name a few,

Climate Change is an emergency for so many reasons. International experts have urged action on climate with increasing fervor in recent years for good reason: the consequences of staying the course will be highly dangerous.

Maryland Department of the Environment, citing the Maryland Commission on Climate Change and the International Panel on Climate Change, [has adopted a net zero green-house gases goal by 2045](#). The climate Solutions Now bill is a major step towards achieving that goal. We have an opportunity to listen to scientists now while signaling to the nation that Maryland is ready to embrace the new green economy. There is no more time to delay on meaningful climate action.

Chesapeake Physicians for Social Responsibility urges support for SB414 Climate Solutions Now Act. The public health costs of inaction are too great.

Gwen L. DuBois MD, MPH, President. gdubois@jhsph.edu
Chesapeake Physicians for Social Responsibility
P.O. Box 10445
Baltimore, Maryland 21209

IPL Testimony on HB 583 - Climate Solutions Now Ac

Uploaded by: Lacock-Nisly, Jonathan

Position: FAV



Interfaith Power & Light (DC.MD.NoVA)

100 Allison St NW

Washington, DC 20011

202-709-7641 • program@gwipl.org

Jonathan Lacock-Nisly, Director of Faithful Advocacy

February 9, 2021

Testimony on HB 583 –
HB 583: Climate Solutions Now Act
Environment and Transportation Committee

Position: Favorable

Interfaith Power & Light (DC.MD.NoVA) supports HB 583.

Congregations of many faith traditions all across Maryland are taking action on the climate crisis because we are heartsick knowing that our climate pollution is hurting our neighbors, here and throughout the world.

It is simply not just that all of us, and especially communities of color, our elderly, and our young people, have paid the price for that pollution. Marylanders have paid for dirty energy with our health. We've paid when a disrupted climate exacerbates storms and brings flooding, like the *two* "hundred-year" floods that hit Ellicott City in the past five years.

That's why people of faith are taking action—installing solar panels on houses of worship and buying clean energy for our sacred spaces, planting trees in our communities to clean our air and absorb climate pollution, and changing our transportation habits by riding public transit and buying electric vehicles.

In houses of worship across the state, clergy and lay leaders are sharing the message that another world is possible. The Climate Solutions Now Act is a way, here in Maryland, to take a meaningful step towards making that vision more real.

We can set a timeline for getting Maryland to net-zero climate pollution. We can plant 5 million trees, including 500,000 in overburdened urban neighborhoods. We can electrify our state vehicles, cleaning our air and reducing the number of childhood asthma attacks. And we can ensure that all of our communities benefit from and have a say in this process.

Maryland's faith communities are acting for our common home, for our neighbors, and for a clean energy economy. We call on our legislators to do the same.

We urge the committee to give HB 583 a favorable report.



The Episcopal Diocese of Maryland, led by the Rt Rev. Eugene Taylor Sutton, gathered in Annapolis to advocate for a previous version of the Climate Solutions Now Act in early 2020.



People of faith from across Maryland gathered in Howard County to learn and take action on the Climate Solutions Now Act's previous iteration in January 2020.



People of faith participated in the Chesapeake Climate Action Network's "polar plunge" at National Harbor in early 2020 to support the Climate Solutions Now Act's previous iteration and its goal of keeping winter cold.



Marylanders gathered at Asbury United Methodist Church in Annapolis to advocate for the Climate Solutions Now Act's previous iteration in early 2020.



Hundreds of Marylanders, including faith communities, gathered in College Park in support of the Climate Solutions Now Act's previous iteration in December 2019. IPL-DMV's Director Joelle Novey called all those present to turn to a neighbor and share "Why does climate change matter to you?"

HB583_ClimateSolutionAct.pdf

Uploaded by: Lewis, Bob

Position: FAV

Joe Anderson
President

January 25, 2021

Patricia Samford
Vice President

Subject: HB0583: Climate Solutions Now Act of 2021

Larry O'Brien
Secretary

Environment and Transportation Committee – February 11th, 2021

Chandler Wyatt
Treasurer

FAVORABLE

Melina Cavathas
Director

Dear Delegate Barve and members of the Committees,

Captain Will Gates
Director

Without reservation, we strongly request a favorable finding for HB0583, the Climate Solutions Now Act of 2021.

John Giusti
Director

The St. Mary's River Watershed Association is actively fighting for our Chesapeake Bay in three measureable ways—increasing the acreage of vibrant oyster habitat, installing storm water control devices on residential and small business properties, and installing riparian buffers and natural shoreline protections. These activities give us a firsthand look at how climate change is already impacting our Chesapeake Bay and its tributaries.

Emily Jackson
Director

Captain Paul Kellam
Director

David Lewis
Director

Water temperature, especially in July and August are reaching heights rarely seen decades ago. In the St. Mary's River the past few years, water temperature has risen to 31 degrees Celsius. These high temperatures, a direct result of climate change, are negatively impacting aquatic life—oysters do not breed successfully and fish are moving to cooler waters further north. Warmer waters are causing even small algae blooms to expand rapidly and cause larger and more persistent dead zones.

Bob Paul
Director

John Spinicchia
Director

Elaine Szymkowiak
Director

Shorelines are also being impacted, especially tidal marsh areas. Twenty-five years ago, the ten-acre marsh in front of our field office was lush with marshmallow that bloomed every May. Today the area has no mallow living there. Sea level rise and persistent higher tides have killed all the woody plants such as mallow. The marsh now is dominated by grasses. Even small sea level rise has already changed our environment depriving us of the beautiful soft pink blossoms that permeated the marsh years ago. Surely other negative impacts are occurring that remain unseen at this time.




These are the local impacts of climate change on our river. Greater impacts are being felt elsewhere and none is more important and the need to address the loss of our trees. Trees are the source of oxygen for us to breathe and they cleanse the air of pollutants. HB0583 is the first step in reversing the loss of our forests and tree canopies.

It is imperative that Maryland begin to take very bold steps to reverse climate change. The economics of waiting to react is a real danger—it will cost more over time the longer we wait to do something to arrest climate warming.

HB0583 is a necessary step to continue Maryland's pursuit of zero carbon emissions, which is the key to saving our waterways from overheating and our marshes from being inundated. We request the Committee return a FAVORABLE report on HB0583.

Respectfully,

A handwritten signature in black ink that reads "Joseph Anderson". The signature is written in a cursive, flowing style.

Joseph Anderson, president

Takoma Park - HB 583 FAV - Climate Solutions Now.p

Uploaded by: Ludlow, Suzanne

Position: FAV



CITY OF TAKOMA PARK, MARYLAND

**HB 583
Support**

House Environment and Transportation Committee

February 11, 2021

HB 583 Climate Solutions Act of 2021

City Contact: Cindy Dyballa, Ward 2 City Council Member

CindyD@takomaparkmd.gov

The City of Takoma Park supports the goals and intent of House Bill 583, and urges favorable consideration.

This bill would accelerate the state's overall greenhouse gas (GHG) emissions reduction goal from 40% to 60% by 2030, with a goal of net zero GHG emissions by 2045. Provisions address a wide range of state policies and actions to improve energy efficiency and solar-ready requirements for new and renovated buildings, increase carbon sequestration and improve climate resiliency through tree plantings statewide, green the state vehicle fleet, and address climate justice and job impacts, among other provisions.

Throughout Maryland, we can see that our climate statewide is dramatically and rapidly changing with devastating consequences, and that greenhouse gas emissions must be dramatically reduced in the very short term to address this. We must accelerate and expand efforts on the part of all levels of government, and the state of Maryland must take an aggressive leadership role and lead by example. Impacts statewide include more severe and frequent storms, greater rainfall, increased flooding, more frequent and extreme heat waves, sea level rise along our extensive coasts, and more. One significant impact in Takoma Park is more stormwater runoff more often, challenging the capacity of our older infrastructure. There's no time to waste.

Takoma Park has been a leader among Maryland communities in responding to the challenges of climate change and in reducing greenhouse gas emissions through our many local policies and actions. In 2019 the City declared a climate emergency and set a goal of net zero GHG emissions by 2035. Last year the City adopted a Climate Emergency Response Framework to move aggressively to implement that goal. We recognized the need for greater resiliency to address the impacts we are already experiencing, through our new urban forest policies. Our City is publicly committed to action on climate change through the Global Covenant of Mayors for Climate and Energy, the Paris Climate Agreement and the Sierra Club 100% renewable energy pledge.

To truly fulfill our City's commitments, and dramatically reduce our GHG emissions, we need strong state leadership and action to support us.

In sum, the City of Takoma Park supports the goals and intent of this bill, and encourages a favorable vote.

HB583_IndivisibleHoCoMD_FAV_BarbMatheson (1).pdf

Uploaded by: Matheson, Barbara

Position: FAV



HB583/SB414 – Climate Solutions Now Act of 2021

Testimony before House Environment & Transportation Committee

February 11, 2021

Position: Favorable

Dear Chairman Barve and Members of the Committee:

Indivisible Howard County asks for your strong support for HB583: The Climate Solutions Now Act. We are grateful for Del. Stein's leadership on this urgent and essential environmental legislation.

Maryland is one of the most impacted states by global warming. Rising sea levels are eroding 3000 miles of coastline and flooding over 265,000 acres of low-lying areas. In urban areas greenhouse gases are contributing to increasing rates of asthma, lung disease and cancer. The solutions are not only local but global. Never has international cooperation been more essential to address the climate crises. The Climate Solutions Now Act provides the framework for responsible global citizenship and the beginning of essential solutions to the Climate Crisis by:

- Reducing greenhouse gases 60% by 2030, 100% by 2045 in keeping with scientific evidence forming the bases for the Paris Climate Accords,
- Planting five million trees (10% in underserved communities) to combat greenhouse gases
- Establishing policy for increased energy efficiency in government buildings, transition to electric vehicles and requiring honest and transparent reporting by the State
- Requiring that the Commission on Environmental Justice and Sustainable Communities set standards identifying unfairly burdened communities, implementing forums with affected neighborhoods to identify needs and methods for funding.
- Helping to provide a just transition for fossil fuel workers that have fueled the Industrial Revolution of the past
- Providing funding sources from the Strategic Energy Investment Fund and the Bay Restoration Fund.

The climate crisis is measured in unquestionable scientific data. It is urgent that Maryland not delay in helping its citizens and the global community to find solutions.

Indivisible Howard County urges a favorable report on HB583.

Barb Matheson
Columbia, MD

HB0583 - ET - FAV.pdf

Uploaded by: Mehu, Natasha

Position: FAV



BRANDON M. SCOTT
MAYOR

*Office of Government Relations
88 State Circle
Annapolis, Maryland 21401*

HB 583

February 11, 2021

TO: Members of the House Environment and Transportation
FROM: Natasha Mehu, Director of Government Relations
RE: HOUSE BILL 583 – CLIMATE SOLUTIONS NOW ACT OF 2021
POSITION: SUPPORT

Chair Barve, Vice Chair Stein, and Members of the Committee, please be advised that the Baltimore City Administration (BCA) **supports** House Bill (HB) 583.

House Bill 583 is comprehensive bill that requires multiple actions aimed at reducing greenhouse gas (GHG) emissions across many sources, including buildings, transportation, energy conservation, and solid waste. The Bill also establishes an Urban Tree Program to plant native species of trees in underserved areas.

Baltimore City, like many other Maryland jurisdictions, has developed its own Climate Action Plan (adopted in 2012) and set a GHG emissions reduction goal of 25 percent reduction by 2020 and 30 percent by 2025 (relative to 2007). While the rise of global emissions are a serious threat to all, adverse effects from a changing atmosphere can compound existing poverty in a city like Baltimore, where almost 35 percent of households earn less than \$25,000 annually. The City has also established a goal to increase its tree canopy coverage to 40 percent tree.

Other related goals are included in our 2019 Sustainability Plan, which articulates a new vision for a more resilient, equitable, and sustainable Baltimore. The plan uses an equity lens to improve planning, decision-making, and resource allocation leading to more racially equitable policies and programs.

For these reasons, the BCA respectfully requests a **favorable** report on House Bill 583.

HB0583_FAV_City of Rockville_Climate Solutions Now

Uploaded by: Moran, Linda

Position: FAV



Mayor and Council of Rockville

Telephone: 240-314-8870

Email: eshingara@rockvillemd.gov
CONTACT: Erica Shingara, Chief
of Environmental Management

HB 583: CLIMATE SOLUTIONS NOW ACT of 2021

SUPPORT

The Rockville Mayor and Council are thankful to Chairs Barve and Davis and members of the House Environment and Transportation and Economic Matters Committees for the opportunity to comment on HB 583 - Climate Solutions Now Act of 2021. The Mayor and Council support HB 583 and State efforts to demonstrate climate and energy leadership.

HB 583 contains robust climate goals and a multi-pronged approach to achieving them which will benefit local governments as they invest in a clean economy and protect public health and the environment. HB 583 strengthens the current statewide greenhouse gas emissions reduction requirement of 40 percent to 60 percent from 2006 levels by 2030 and requires the State to achieve net-zero statewide emissions by 2045.

We support the many provisions in the bill, including State commitments to purchase zero-emission vehicles in the State fleet which will foster more favorable market conditions and contract opportunities to enable local jurisdictions to transition their fleets to cleaner technologies. We also support requirements for the Maryland Department of Labor (MDL) to adopt new energy conservation requirements for new buildings and high-performance building standards. HB 583 also establishes strong State tree-planting goals and directs \$15 million in annual funding from the state's Bay Restoration Fund to plant 5 million trees during the next decade, including 500,000 trees in underserved, urban areas. Importantly, the bill includes environmental justice considerations to build climate equity and resilience within disproportionately affected communities and establishes a Just Transition Employment and Retraining Work Group to examine the various issues and opportunities related to job loss and creation as the State implements energy and emissions reduction measures.

We support the General Assembly's efforts to establish comprehensive state-wide action to mitigate climate change as outlined in HB 583. We urge the Committees to provide this legislation with a favorable report. We thank the Committees for considering Rockville's comments as it deliberates the merits of this legislation.

WISE testimony - HB0583 CSN Act.pdf

Uploaded by: O'Connor, Monica

Position: FAV



Committee: Environment and Transportation
Testimony on – HB0583 – *Climate Solutions Now Act*
Organization – WISE
Person Submitting: Monica O'Connor
Position: Favorable
Hearing Date: February 11, 2021

Dear Mr. Chairman and Members of the Committee,

WISE is testifying in support of the Climate Solutions Now Act HB0583. WISE is a group of over 500 women in Anne Arundel County focused on important state and county level legislation. We have deep concerns that the climate crisis facing our state and county is not being addressed with necessary urgency. We are seeing our children's future jeopardized by the crisis unfolding before us. The science of climate change is clear – as is our lived experience. Rising waters in the county, sunny day flooding, high temperature in the summer and erratic weather is now commonplace.

We believe the science and anticipate that our elected officials will act with the necessary urgency this moment calls for. We cannot waste more time. Globally, we are at a critical choice point that will determine the course of our future forever. Climate change is already here, and we are the last generation that will be able to course correct towards a livable future for all.

We have no doubt that the state of Maryland has an important national role to play – and can be a leader on climate action. We have the tools, resources and knowledge to take action right now.

This bill ensures Maryland will be part of the new green future by:

- Ensuring Maryland is in line with the current climate science by committing us to a 60% reduction in carbon emissions below 2006 levels by 2030 and to reaching net zero emissions by 2045
- Restructuring our approach to climate justice by mandating that a percentage of all future climate spending must go to “disadvantaged” communities in terms of climate change, a term to be defined by experts and stakeholders

- Ensuring that labor voices are represented in our planning process, and that jobs benefit those who need them most
- Taking several immediate steps to reduce emissions, such as planting 5 million native trees by 2030, electrifying state vehicles, requiring several net neutral buildings and mandating energy efficiency increases

International experts have urged action on climate with increasing fervor in recent years for good reason: the consequences of staying the course will be highly dangerous. Here in Maryland, we have a lot at stake, with nuisance flooding, high heat days and storm surges already regular occurrences. We have an opportunity to listen to scientists now while signaling to the nation that Maryland is ready to embrace the new green economy. There is no more time to delay on meaningful climate action.

We encourage a FAVORABLE report for this essential legislation.

Signed,
Monica O'Connor
WISE – Legislative Liaison
Mdoconnor17@gmail.com

HB 0583 Climate Solutions Now - AIA MD Ltr of Supp

Uploaded by: Parts, Chris

Position: FAV



AIA
Maryland

Promoting Maryland Architecture Since 1965

8 February 2021

Delegate Kumar P. Barve
Chair, House Environment and Transportation Committee
Room 251
House Office Building
Annapolis, Maryland 21401

Re: Letter of Support for HB 0583
Climate Solutions Now Act of 2021

Dear Delegate Barve:

On behalf of AIA Maryland and the nearly 2,000 Architects we represent, we ask for your support of the Climate Solutions Now act of 2021. With 40% of US energy consumed by buildings, architects play a key role in helping us significantly reduce CO2 emissions. Since 2009 many architects have opted into an AIA 2030 challenge, a program focused on tracking baseline and predicted energy use, aimed at moving us toward net zero carbon emissions by 2030. This bill not only helps Maryland funded projects to lead by example, pushing state funded projects to be net zero and solar ready, but it also moves the energy conservation requirements for the state to take all new commercial projects toward net zero energy by 2033 by pushing us a little ahead of building code regulations.

We are particularly pleased with the broad perspective of the Climate Solutions Now Act, impacting interconnected issues of health, our natural environments, transportation, site development and buildings. All these elements contribute to the health and well-being of Maryland residents and when looked at broadly like this, they may collectively have a much greater impact than incremental changes that impact singular components that contribute to climate change.

With this bill, the publicly funded projects move significantly forward in reducing long term operational costs for energy. In the next 8 years, at least one new school in every jurisdiction would be built to meet net zero energy reduction goals. Additionally, all new school projects would have their roofs designed, infrastructure planned and space allocated to be solar ready. This bill also provides a no interest net zero school loan paid back with the energy cost savings of the school to assist with any potential additional cost of reaching zero energy for schools. Schools are projects that are well suited based on floor to roof area to be zero energy structures and some may have the capacity to be net positive, feeding electricity back into the grid. While this is important from an operational cost standpoint, this is also an important means of educating our students to help them understand efforts we are making to slow down the effects of climate change and lessons within the buildings can be brought into the classroom. Since 20% of our state population is in public schools every day, this has a broad impact on our residents.

The American Institute of Architects

AIA Maryland
86 Maryland Avenue
Annapolis, Maryland 21401

T (410) 263 0916

www.aiaMaryland.org

The energy conservation steps of this goal apply to new commercial construction and they largely move the goal line one step closer for each code cycle. Energy codes are reviewed and updated every three years and using the 2018 energy code as a baseline, the incremental steps increase efficiency by 30% by 2026, 40% by 2029 and 60% by 2032, taking us to net zero energy by 2033. This just moves the cycle in the direction it is heading a few years in advance of when they would be adopted. Additionally, one way to significantly reduce the carbon footprint is to work with buildings we already have. This bill applies to major renovation projects and changes in a building use. There can be aspects of an existing structure that are limiting, so the bill provides two paths to reduce energy consumption, either a 40% reduction in average energy use, or a 20% improvement over code requirements for a new building. These common-sense measures will move the needle toward lowering energy demand and creating a healthier environment in which we live.

The Climate Solutions Now Act puts Maryland on a path to slow the impact of climate change. The measures within the bill will move us toward healthier, more efficient communities and structures in which we live work and play. The reduced energy demand provides long term savings on operational costs as most buildings provide 50+ years or more of service. We ask for your support of HB0583 to help have an impact on climate change now.

Sincerely,



Chris Parts, AIA
Director, Past President, AIA Maryland

cc: Environment and Transportation Committee:

Dana Stein, Vice Chair
Barrie S. Cilberti
Andrea Fletcher Harrison
Jay Jalisi
Charles J. Otto
Jen Terrasa

Marlon Amprey
Jerry Clark
Anne Healey
Mary A. Lehman
Neil Parrott
Melissa Wells

Carl Anderton, Jr.
David Fraser-Hidalgo
Marvin E. Holmes, Jr.
Brooke E. Lierman
Sheila Ruth
William J. Wivell

Regina T. Boyce
Jim Gilchrist
Jay A. Jacobs
Sara Love
Vaughn Stewart

AIA Maryland Board of Directors

The American Institute of Architects

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HB 583 - Climate Solutions Now Act.pdf

Uploaded by: Peterson, Matt

Position: FAV

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Adat Chaim Congregation

American Jewish Committee

Americans for Peace Now

Baltimore Chapter

American Israel Public Affairs Committee

American Red Magen David for Israel

American Zionist Movement

Amit Women

Association of Reform Zionists of America

Baltimore Board of Rabbis

Baltimore Hebrew Congregation

Baltimore Jewish Green and Just Alliance

Baltimore Men's ORT

Baltimore Zionist District

Beth Am Congregation

Beth El Congregation

Beth Israel Congregation

Beth Shalom Congregation of

Howard County

Beth Tfiloh Congregation

B'nai B'rith, Chesapeake Bay Region

B'nai Israel Congregation

B'nai Jacob Shaarei Zion Congregation

Bolton Street Synagogue

Chevra Ahavas Chesed, Inc.

Chevrei Tzedek Congregation

Chizuk Amuno Congregation

Congregation Beit Tikvah

Congregation Beth Shalom of

Carroll County

Congregation Tiferes Yisroel

Federation of Jewish Women's

Organizations of Maryland

Hadassah

Har Sinai - Oheb Shalom Congregation

J Street

Jewish Federation of Howard County

Jewish Labor Committee

Jewish War Veterans

Jewish War Veterans, Ladies Auxiliary

Jewish Women International

Jews For Judaism

Moses Montefiore Anshe Emunah

Hebrew Congregation

National Council of Jewish Women

Ner Tamid Congregation

Rabbinical Council of America

Religious Zionists of America

Shaarei Tfiloh Congregation

Shomrei Emunah Congregation

Simon E. Sobeloff Jewish Law Society

Suburban Orthodox Congregation

Temple Beth Shalom

Temple Isaiah

Zionist Organization of America

Baltimore District



WRITTEN TESTIMONY

House Bill 583 – Climate Solutions Now Act of 2021

Environmental and Transportation Committee

Economic Matters Committee

February 11, 2021

SUPPORT

Background: House Bill 583 (HB583) would phase in a decrease of Maryland's greenhouse gas emissions by 60% in order to achieve net-zero emissions by 2045. The bill authorizes the Commission on Environmental Justice and Sustainable Communities to seek community input and publish ways to ensure this goal is achieved in an equitable way, that accounts for historically underserved areas. The bill also introduces a number of smaller measures to help the state meet this goal. This includes planting 5 million trees, with 10% in urban areas. Requiring newly constructed state buildings to be carbon neutral, and state fleet vehicles and transit busses to be zero-emissions. Landfill emissions must also be closely monitored, and rises are to be investigated. Additionally, the bill includes a study group to develop protections for workers who may be adversely affected by these measures.

Written Comments: The urgency of the climate crisis we are facing cannot be understated. It is the single greatest existential threat we face right now, and it therefore needs to be addressed *now*. The measures outlined in this bill are ambitious and will not be easy but are necessary. For certain parts of our state, it already is too late, and if we do not act, it will be too late for the rest.

The Jewish concept of *tikkun olam* teaches us to repair the world in which we live in. Jewish law clearly states that we are not to destroy the public domain. If passed, this bill would immediately put us on the track to reverse decades of pollution that have contributed significantly to the decline of our environment and has for generations disproportionately impacted communities of color.

The Baltimore Jewish Council and the The Associated Jewish Community Federation of Baltimore are committed to repairing our world. We represent The Pearlstone Center in Reisterstown, MD, a conference center and farm that employs and teaches sustainable practices, many of which are called for in this bill. We encourage this committee to join us in our mission to create a cleaner Maryland that is healthier for everyone. With this in mind, the Baltimore Jewish Council urges a favorable report of HB 583.

The Baltimore Jewish Council, a coalition of central Maryland Jewish organizations and congregations, advocates at all levels of government, on a variety of social welfare, economic and religious concerns, to protect and promote the interests of The Associated Jewish Community Federation of Baltimore, its agencies and the Greater Baltimore Jewish community.

BALTIMORE JEWISH COUNCIL

5750 Park Heights Avenue, Suite 329 • Baltimore, Maryland 21215

410-542-4850 • fax 410-542-4834 • baltjc.org

Member of the Jewish Council for Public Affairs

Baltimore Jewish Council is an agency of The Associated



HB0583 MD NARAL SUPPORTb.pdf

Uploaded by: Philip, Diana

Position: FAV



HB0583 - Climate Solutions Now Act of 2021

Presented to the Hon. Kumar Barve and Members of the House Environment & Transportation Committee
February 11, 2021 1:30 a.m.

POSITION: SUPPORT

NARAL Pro-Choice Maryland urges the House Environment and Transportation Committee a **favorable report on HB0583 - Climate Solutions Now Act of 2021** sponsored by Delegate Dana Stein.

Our organization is an advocate for reproductive health, rights, and justice. Mitigating the effects of climate change is a critical concern for reproductive health professionals because of the adverse sexual health consequences associated with rising global temperatures, and the intersection between environmental justice and [reproductive justice](#). HB0583 seeks to achieve net-zero statewide greenhouse gas emissions by 2045, this is an essential goal to slow the rate of climate change and accelerating high temperatures.

Rising global temperatures is making excessive heat perhaps the most serious threat to pregnant persons going forward; exposure to unusually hot temperatures can lead to changes in length of gestation, low birth weight, increased stillbirth rates, and neonatal stress.¹ Additionally, increased instances of natural disasters result in a disruption of reproductive health services which can lead to unplanned pregnancies; conversely, natural disasters can displace families and leave them financially unstable resulting in reduced fertility.² In both cases, individuals lose their reproductive freedom to choose when to become pregnant. Furthermore, experiencing a natural disaster as a pregnant person can lead to post-traumatic stress syndrome and poor birth outcomes, including low birth weight and pre-term delivery.³ Substantial research has demonstrated that infants born with low birth weight may be more at risk for many health problems; some may become sick in the first six days of life or develop infections, others can suffer from long term problems such as delayed motor skills and social development or learning disabilities.⁴ These reproductive health outcomes have significant impacts on individuals, families, health-care systems, and societies; the consequences of climate change and its impact on reproductive health disproportionately effect low-income families and [communities of color](#).

The Climate Solutions Now Act of 2021 seeks to ameliorate the effects of climate change with a focus on environmental justice concerns, climate equity, and resilience within disproportionately affected communities. For these reasons, NARAL Pro-Choice Maryland **urges a favorable committee report on HB0583**. Thank you for your time and consideration.

¹ Bekkar B, Pacheco S, Basu R, & DeNicola N. (2020). Association of Air Pollution and Heat Exposure with Preterm Birth, Low Birth Weight, and Stillbirth in the US: A Systematic Review. *JAMA Network Open*; 3(6):e208243. doi:10.1001/jamanetworkopen.2020.8243

² Tobin-Gurley, J, Peek, L, & Loomis, J. (2011). Displaced Single Mothers in the Aftermath of Hurricane Katrina. *International Journal of Mass Emergencies and Disasters* 28, no. 2: 170-206.

³ Xiong, Xu et al. "Exposure to Hurricane Katrina, post-traumatic stress disorder and birth outcomes." *The American journal of the medical sciences* vol. 336,2 (2008): 111-5. doi:10.1097/MAJ.0b013e318180f21c

⁴ Centers for Disease Control and Prevention. Reproductive and Birth Outcomes and the Environment. Retrieved <https://ephtracking.cdc.gov/showRbBirthOutcomeEnv>

HB0583_Climate_Solutions_Now_MLC_FAV.pdf

Uploaded by: Plante, Cecilia

Position: FAV



TESTIMONY FOR HB0583 CLIMATE SOLUTIONS NOW ACT

Bill Sponsor: Delegate Stein

Committee: Environment and Transportation

Organization Submitting: Maryland Legislative Coalition

Person Submitting: Cecilia Plante, co-chair

Position: FAVORABLE

I am submitting this testimony in favor of HB0583 on behalf of the Maryland Legislative Coalition. The Maryland Legislative Coalition is an association of activists - individuals and grassroots groups in every district in the state. We are unpaid citizen lobbyists and our Coalition supports well over 30,000 members.

This past year, the Maryland Legislative Coalition created a new subgroup specifically to support environmental legislation in the state. We started with member groups of the Coalition but through word of mouth, we connected with over 50 new groups. That is how passionate Marylanders are about the environment.

We all are enthusiastic about this bill. It is a comprehensive attack on the climate crisis and a recognition that we must have a multi-pronged approach if we are to truly get to net zero emissions. However, the aspects of the bill that most impressed us are those that deal specifically with climate justice.

This bill tasks the Maryland Commission on Environmental Justice and Sustainable Communities to identify communities disproportionately impacted by the climate crisis and set a percentage of state funds spent on climate that must be spent in those communities.

It also convenes a new Work Group that will include labor, legislators, the Secretary of Labor's office, climate groups, and renewable energy companies to make policy recommendations for how to best serve fossil fuel workers in Maryland.

It requires the planting of five million trees between 2022 and 2030. Five hundred thousand of those trees will be planted in urban areas that have been historically redlined or are economically disadvantaged. A work group will target the best locations for tree plantings to maximize environmental benefits and determine the best way to leverage private funding. Also, a grant program will be created to fund community groups planting trees in underserved urban areas through the Chesapeake Bay Trust.

Even in the area of solar, there are benefits for marginalized communities. Any community solar projects on rooftops, parking lots, or brownfields that primarily benefit low-income households are exempted from personal property tax.

Maryland needs to do this. For the environment, but also to recognize the harm that some of our communities have suffered and try to ensure that they directly benefit from the transition to a more green, healthier way of life.

We support this bill and recommend a **FAVORABLE** report in committee.

HB583 - FAV - Climate Solutions, GCAN, 2.pdf

Uploaded by: Rosenthal, Lore

Position: FAV



Committee: Environment & Transportation
Testimony on: HB583 – “Climate Solutions Now”
Organization: Greenbelt Climate Action Network
Person Submitting: Lore Rosenthal, Program Coordinator
Position: Favorable
Hearing Date: February 11, 2021

Dear Chairman Barve and Committee Members,

Thank you for allowing our testimony today in support of HB583.

Greenbelt Climate Action Network is a local organization, which educates residents about climate change, “systemic” solutions, how they can change their behaviors to be more sustainable, and take personal, local, systemic, and political action.

We urge you to vote favorably for HB583.

Globally, we are at a critical choice point that will determine the course of our future forever. Climate change is already here, and we are the last generation that will be able to course correct towards a livable future for all. However, we have the tools, resources and knowledge to take action right now.

This bill ensures Maryland will be part of the new green future by:

- Ensuring Maryland is in line with the current climate science by committing us to a 60% reduction in carbon emissions below 2006 levels by 2030 and to reaching net zero emissions by 2045
- Restructuring our approach to climate justice by mandating that a percentage of all future climate spending must go to “disadvantaged” communities in terms of climate change, a term to be defined by experts and stakeholders
- Ensuring that labor voices are represented in our planning process, and that jobs benefit those who need them most
- Taking several immediate steps to reduce emissions, such as planting 5 million native trees by 2030, electrifying state vehicles, requiring several net neutral buildings and mandating energy efficiency increases

Greenbelt Climate Action Network feels strongly that we need this type of bill. It gives our state overall guidance and vision on how to move forward on a whole host of climate solutions.

International experts have urged action on climate with increasing fervor in recent years for good reason: the consequences of staying the course will be highly dangerous. Here in Maryland we have a lot at stake, with nuisance flooding, high heat days and storm surges already regular occurrences. We have an opportunity to listen to scientists now while signaling to the nation that Maryland is ready to embrace the new green economy. There is no more time to delay on meaningful climate action.

For all these reasons (listening to science, climate justice, labor participation, tree planting, electrifying vehicles, energy efficiency, and net zero buildings), **we urge you to vote favorably for HB583.**

Signed,
Lore Rosenthal, Program Coordinator
Greenbelt Climate Action Network
2-R Gardenway
Greenbelt, MD 20770

Global Warming Testimony - RGR.pdf

Uploaded by: Roshong, Riley

Position: FAV



YouTube: [rileygraceroshong](https://www.youtube.com/rileygraceroshong) | Twitch: [rileygraceroshong](https://www.twitch.tv/rileygraceroshong) | Twitter: [@rileygroshong](https://twitter.com/rileygroshong) | Discord: discord.gg/rgr

1 ON THE NATURE OF whether global warming is an issue that requires government intervention:

2 WHEREAS according to NASA, it is the scientific consensus that “ that 97 percent or more of actively publishing
3 climate scientists agree: Climate-warming trends over the past century are extremely likely due to human
4 activities” and “most of the leading scientific organizations worldwide have issued public statements endorsing
5 this position.”^{[1][2][3][4][5][6]}

6 WHEREAS according to the American Association for the Advancement of Science, the American Chemical
7 Society, the American Geophysical Union, the American Medical Association, the American Meteorological
8 Society, the American Physical Society, and the Geological Society of America: “[o]bservations throughout the
9 world make it clear that climate change is occurring, and rigorous scientific research demonstrates that the
10 greenhouse gases emitted by human activities are the primary driver.”^{[7][8][9][10][11][12][13][14]}

11 WHEREAS according to the U.S. National Academy of Sciences: “Climate change is real. . . . The evidence
12 comes from direct measurements of rising surface air temperatures and subsurface ocean temperatures and from
13 phenomena such as increases in average global sea levels, retreating glaciers, and changes to many physical and
14 biological systems” and “most of the warming in recent decades can be attributed to human activities.”^{[14][15]}

15 WHEREAS according to the U.S. Global Change Research Program: “Earth’s climate is now changing faster
16 than at any point in the history of modern civilization, primarily as a result of human activities.”^{[16][17]}

17 WHEREAS according to the Intergovernmental Panel on Climate Change: “Warming of the climate system is
18 unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia.
19 The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen.
20 . . . Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are
21 the highest in history.”^{[18][19][20]}

22 WHEREAS 200+ worldwide scientific organizations claim climate change has been caused by humans.^{[21][22]}

23 WHEREAS “[t]he current warming trend is of particular significance because most of it is extremely likely
24 (greater than 95% probability) to be the result of human activity since the mid-10th century and proceeding at a
25 rate that is unprecedented over decades to millennia.”^{[23][24][25][26][27][28]}

26 WHEREAS “[t]he heat-trapping nature of carbon dioxide and other gases was demonstrated in the mid-19th
27 century” and “[t] here is no question that increased levels of greenhouse gases must cause Earth to warm in
28 response.”^{[29][30][31][32][33][34][35][36][37]}

29 WHEREAS “paleoclimate evidence reveals that current warming is occurring roughly ten times faster than the
30 average rate of ice-age-recovery warming” and “carbon dioxide from human activity is increasing more than 250
31 times faster than it did from natural sources after the ice age.”^{[38][39]}

32 WHEREAS the overwhelming majority of academia recognizes human-caused global warming has resulted in
33 global temperature rise, warming oceans, shrinking ice sheets, glacial retreat, decreased snow cover, sea level
34 rise, declining arctic sea ice, extreme events (such as hurricanes and wildfires), and ocean acidification.
35 ^{[40][41][42][43][44][45][46][47][48][49][50][51][52][53][54][55][56][57][58][59][60][61][62][63][64][65]}

36 THEREFORE climate change is a human-caused issue which requires government intervention to resolve.

Sincerely,

A handwritten signature in black ink, appearing to read "Riley Grace Roshong".

Riley Grace Roshong

Letter in support of HB0583.pdf

Uploaded by: Roush, Benjamin

Position: FAV



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February 9, 2021

Chairman Kumar Barve
Chair, House Environment and Transportation Committee
Room 251, House Office Building
Annapolis, MD 21401

Subject: HB0583 Testimony and Support for FSi Engineers

Dear Chairman Barve and the members of the Committee,

Thank you for the opportunity to provide you with my testimony in support of the House Bill 0583 for the Climate Solutions Now Act of 2021.

I am a past Chair of the Board for the Maryland Chapter of the US Green Building Council, Chair of the AIA Baltimore Committee on the Environment, and I have long attended the Maryland Green Building Council meetings that are open to the public. I am a Principal at FSi, with 37 employees—we are mechanical engineers with a strong focus in green and net zero building.

House Bill 0583 endures that Maryland is not left behind in the green building economy and addresses a wide host of issues that we must address to keep Maryland at the forefront of addressing climate change. The bill sets a slow pathway to carbon neutrality. Many of the provisions match or align with the Paris Agreement goals, and put us in line with other neighboring states for what our public construction will require. Most importantly, the bill looks to address environmental justice concerns, creating a working group to specifically address and correct the unequal burden of climate change.

I look forward to seeing your support and ultimately the passage of this bill.

FSi Engineers

A handwritten signature in blue ink, appearing to read 'Ben Roush'.

Ben Roush, PE, FPE, LEED AP BD+C, ASHRAE BEMP and BEAP, Certified Commissioning Professional

Principal

Climate Solutions Now Act testimony.pdf

Uploaded by: Schablein, Jared

Position: FAV

TESTIMONY FOR SB 414

Bill Sponsor: Senator Pinsky

Committee: Education, Health, and Environmental Affairs

Organization Submitting: Lower Shore Progressive Caucus

Person Submitting: Sam Harvey

Position: FAVORABLE

I am submitting this testimony in favor of SB 414 on behalf of the Lower Shore Progressive Caucus. The Caucus is a political and activist organization on the Eastern Shore, unaffiliated with any political party, committed to empowering working people by building a Progressive Movement.

Caucus members consistently support legislation that describes the courageousness of taking critically necessary action – including action that will require common sacrifice – in defiance of inertia and paralysis. The Climate Solutions Now Act is the kind of courageous, optimistic, sweeping policy that can encircle and address the monumental issue of climate change.

We have a moral responsibility to our children, grandchildren, and future generations to address climate change. We must, at last, begin to provide responsible stewardship of the planet they will inherit. At a political impasse these past decades, evidence gathered in the scientific community has long since reached critical mass. An overwhelming majority of us can now accept that human activity is driving climate change. And while it does require courage at the beginning of a change, it has more and more become a matter of clear-eyed reason. Without question we all want to safeguard human civilization, preserve its wonders, and encourage its growth toward a more perfect and just society. There are extremely likely outcomes associated with doing nothing about climate change – that course of inaction can never lead to the realization of these objectives.

It's a matter of showing leadership when we consider a piece of legislation like the Climate Solutions Now Act here in Maryland. Every state has its splendors, but here perhaps more so than in other places our fortunes are tied to the natural world - the sea, the rivers, the Chesapeake Bay. Much of our local culture, is defined by that attachment to the tidewater, and our local economies are dependent on it. For those reasons it's appropriate that we should take a lead role here – and then there's the fact that we're more exposed than most to sea level rise.

We've left it until late in the game, and so now we must act with some real ambition. The Climate Solutions Now Act seeks to reduce our greenhouse gas emissions by 60 percent (of 2006 levels) by 2030, and achieve net zero emissions by 2045. This recommended by the community of climate scientists, as a way to limit global temperature rise to 1.5 degrees Celsius (2.7 degrees Fahrenheit). The seas will continue to rise for centuries to come, but by making a start now we can literally start to turn that tide.

This bill sets forth a broad, visionary approach to achieving this goal, through building green government buildings and public schools, supporting community solar, transitioning government fleets to alternative fuels, and planting five million trees (especially in under-served areas). And the Climate Solutions Now Act does it while considering how it will effect everyone caught up in the change. This is the hallmark of thoughtful, comprehensive, legislation.

The Lower Shore Progressive Caucus strongly supports this bill and recommends a **FAVORABLE** report in committee.

Del Stein Testimony in Support HB 583.pdf

Uploaded by: Stein, Dana

Position: FAV

DANA M. STEIN
Legislative District 11
Baltimore County

Vice Chair
Environment and Transportation
Committee

Subcommittees
Chair, Environment
Natural Resources,
Agriculture and Open Space



The Maryland House of Delegates
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The Maryland House of Delegates
ANNAPOLIS, MARYLAND 21401

Testimony of Delegate Dana Stein in Support of House Bill 583

Chairman Barve and Committee members:

My 14-year old daughter recently said to me that her generation was inheriting all the troubles of climate change. She said that in December, when it was reported that November had been the hottest ever recorded globally. But she also could have said it at the end of July, when the 25 days of 90-plus temperatures in Baltimore broke a record dating to when Grant was President. Or August, when Maryland had tornadoes and torrential rain from Tropical Storm Isaias.

We know that the impacts of climate change are happening now, not in the future. Here are some photos that show this:

First is the famous Annapolis statue of Alex Haley. The youth he is depicted talking to are partly underwater. Annapolis had 18 days of sunny-day flooding in 2019, and many more are projected in the future.

Slide 2: Sunny day or nuisance flooding isn't limited to Annapolis. This is Cambridge on the Eastern Shore.

Slide 3: Also on Eastern Shore--rising sea levels are causing saltwater intrusion, which destroys farmland.

Slide 4: Then there's the disastrous flooding that hit Ellicott City, which had two 1,000-year storms in less than 2 years. Last year, there were so many hurricanes that we had to go through alphabet twice.

Slide 5: Climate change doesn't just make floods worse. It makes wildfires worse. This is a California community after one of last year's wildfires. California had 4 or 5 of its worst recorded wildfires in its history this past year.

Slide 6: This shows how recent years have been the hottest on record. 6 of past 7 years hottest on record.

Slide 7: This is route 50 in Prince George's County last September after heavy rains.

These photos show the challenges we face. We have environmental, public health, and public safety challenges. This bill addresses these challenges by having us reduce emissions by 60% by 2030, and to net zero by 2045, which is what scientists say we need to do to avoid much worse impacts of climate change.

The bill also has several steps to help us get there. The standards for EmPower increase from 2% to 3% per year. The bill requires the electrification of our state vehicle and bus fleet; it sets a net-zero emissions standard for new, state-funded buildings; it strengthens energy conservation standards for large, new buildings; and it strengthens efficiency standards for large buildings when major renovations are conducted.

In the area of sequestration, the bill provides \$500,000 each year to Healthy Soil programs, which help with farm productivity and sequestering carbon. And since the best available technology for sequestration is a tree, the bill authorizes the planting of 5 million trees over 8 years, including 500,000 trees in underserved urban areas to reduce the heat island effect and stormwater runoff.

The legislation also implements several Environmental Justice (EJ) initiatives. For too long, environmental justice hasn't been considered when designing policies to reduce GHG or in the design of adaptation policies.

This bill requires the existing Environmental Justice Commission to:

- Identify a methodology – based on various economic, social, and health considerations – to identify communities disproportionately affected by climate change; and
- Develop specific recommendations to address EJ concerns, reduce emissions of GHGs and co-pollutants, and build resilience in disproportionately affected communities.

The bill also establishes a Just Transition Employment and Retraining Working Group for the purpose of studying/advising on various issues/opportunities related to the transition to a clean energy economy.

There is a target sunset in 2025; so if the legislature feels we're moving too fast or too slow, the bill sunsets.

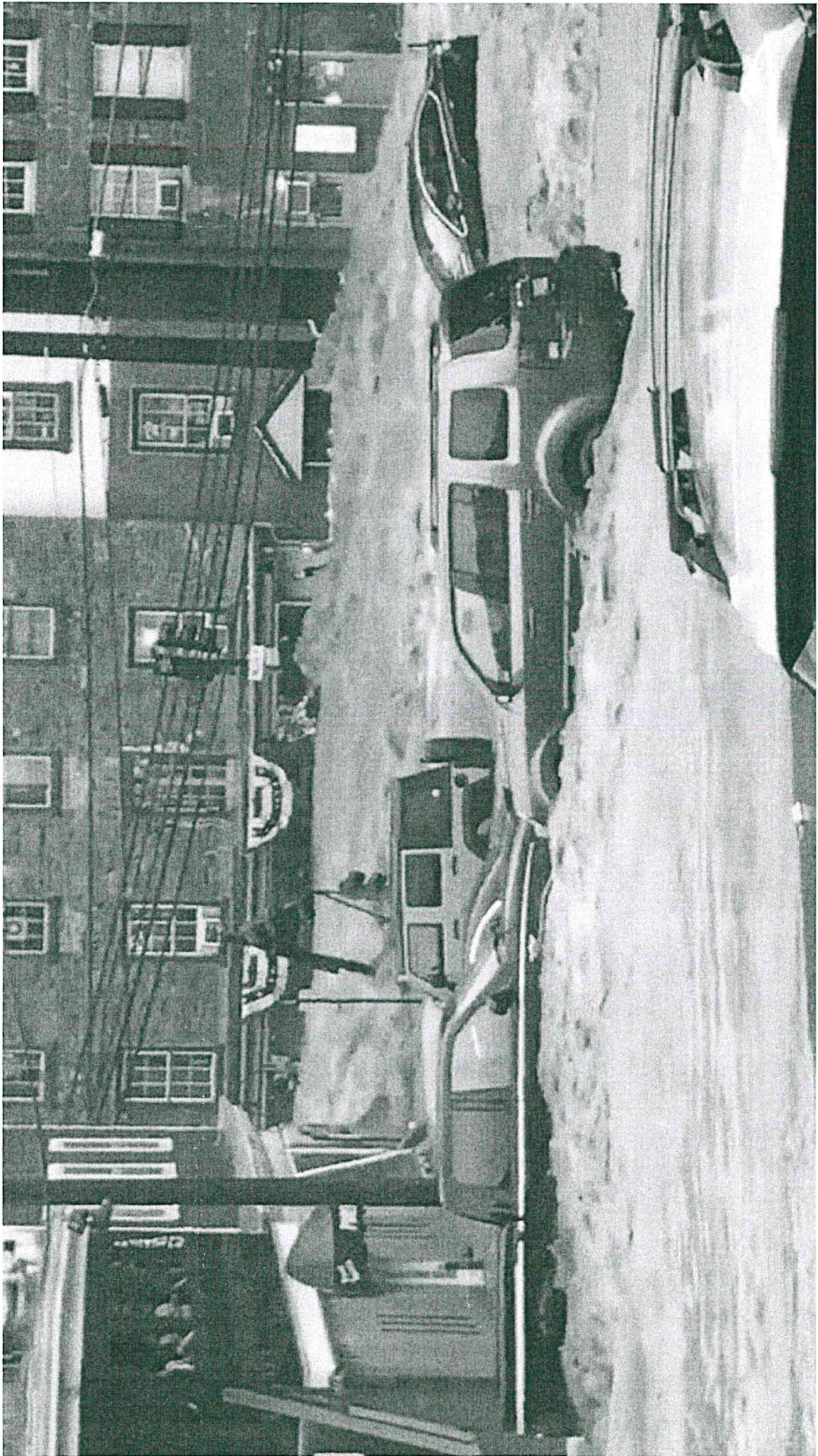


**We are in a
Climate
Crisis**



Coastal farmers in Maryland and
across Mid-Atlantic being driven off
their land as salt poisons the soil

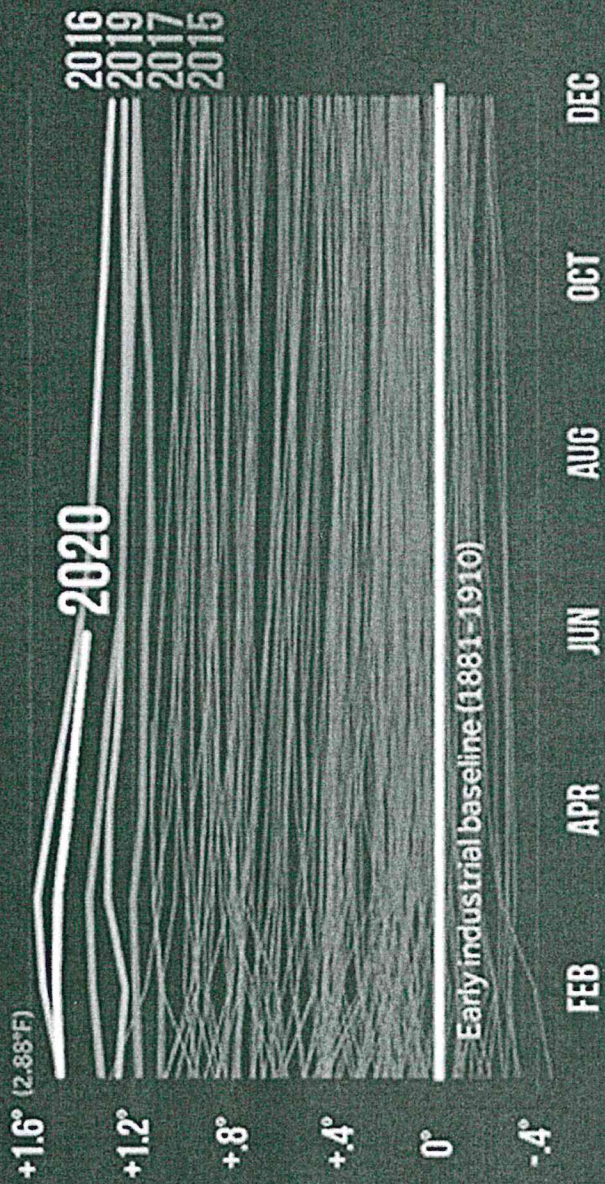






HOTTEST YEARS ON RECORD

GLOBAL YEAR-TO-DATE ANOMALIES (°C) SINCE 1880



Source: NASA GISS & NOAA NCEI global temperature anomalies, averaged and adjusted to early industrial baseline (1881-1910). Data as of 7/15/2020

CLIMATE  CENTRAL



Collaborative Support Letter HB 583

Uploaded by: Stevens Miller, Susan

Position: FAV



February 10, 2021

Chairman Kumar P. Barve
Chairman Dereck E. Davis
Members of the Environment and Transportation Committee
Members of the Environmental Matters Committee

Re: Solar Democracy and Equity Collaborative support of Personal Property Tax Exemption Provisions – House Bill No. 583 (Climate Solutions Now Act of 2021)

The Solar Democracy and Equity Collaborative (“Collaborative”) strongly supports the property tax exemption provisions of HB 583.¹ The Collaborative consists of several organizations, including Climate Action Fund, Earthjustice, the Institute for Energy and Environmental Research, the Montgomery County Green Bank, and Maryland Solar United Neighbors.

With regard to the personal property tax exemption, HB 583 establishes that personal property is exempt from county or municipal corporation property tax if the property is machinery or equipment that (1) is installed on rooftops, parking lots, roadways, or brownfields sites and (2) is part of a community solar energy generating system that serves more than 51% of kilowatt-hour output to low- or moderate-income customers. This tax exemption will encourage solar generation in low and moderate income communities that traditionally are burdened by environmental pollutants. Participation as a community solar subscriber also will provide financial assistance to those low and moderate income households.

Maryland’s community solar pilot program is in its fourth year. Currently, most of community solar projects are designed to serve market-rate customers. Projects designed to serve low and moderate income customers, and projects located on land that has already been developed (rooftops, parking lots, landfills, etc.) generally cost more to develop and typically don’t benefit from the economies of scale that large ground mounted projects do.

Local participation and local ownership works best when a project is located in the community, most likely on a rooftop. Given the financial realities of developing low and moderate income rooftop solar projects, these projects will not be possible without the proposed personal property tax exemption included in HB 583.

In enacting the community solar pilot program, the General Assembly expressly stated that it is in the public interest that the State enable the development and deployment of energy

¹ The Collaborative’s support of the personal property tax exemption provisions should not be interpreted as implying a position on any other aspects of HB 583. The Collaborative simply wishes to highlight the importance of the tax exemption to low and moderate income solar project development.



generation from community solar energy generating systems in order to allow low-income and moderate-income retail electric customers to own an interest in a community solar energy generating system; and encourage developers to promote participation by low-income and moderate-income retail electric customers.² Removal of this financial barrier to low and moderate income solar projects will enhance the community solar pilot program's ability to achieve these objectives.

Finally, the Collaborative thanks Delegate Stein for his leadership on this important issue.

We strongly urge a favorable report for HB 583.

Thank you in advance for your support. Should you have any questions, please contact me at smiller@earthjustice.org.

Respectfully submitted,

Susan Stevens Miller
Staff Attorney, Clean Energy Program
Earthjustice
smiller@earthjustice.org

*On Behalf of the Solar Democracy and Equity
Collaborative*

² Maryland Public Utility Art. § 7-306.2 (b) (2) (i) and (iii).

Climate Solutions Now - Google Docs.pdf

Uploaded by: Sundar, Saketh

Position: FAV

February 8, 2021

SUPPORT: HB0583 Climate Solutions Now Act of 2021

Dear Chairman Barve, Chairman Davis and Members of the Committee,

On behalf of Howard County Student Climate Change Ambassadors, we strongly support HB0583 Climate Solutions Now Act of 2021.

Climate change is an issue that profoundly impacts Maryland considerably more than other states. Maryland is at risk of experiencing another one-foot rise in sea level due to climate change by 2050 and as much as a three-foot rise by 2100, contributing to higher storm wave heights, greater flooding in low-lying coastal areas, exacerbated shoreline erosion, and damage to property and infrastructure. By supporting this legislation which will put Maryland on track to achieve net-zero statewide greenhouse gas emissions by 2045 and plant 5 million trees by 2030, you will make the future brighter for millions of young Maryland residents like us. We would not have to endure a multitude of severe storms and heatwaves. We would not have to suffer from the adverse effects of climate change on our health. We would not have to experience widespread food shortages. By supporting this bill, you will not only protect future generations of Marylanders but also set a precedent for other states to follow suit.

The Climate Solutions Now act commits to investing resources into overburdened and underserved communities. It is well known that these communities are disproportionately affected by climate change, and these negative effects do not just impact one generation, they impact several generations to come. The passage of this bill will help alleviate these adverse effects on low-income and minority populations and help create a more sustainable future for all Maryland residents. A bill like the Climate Solutions Now act gives us and peers of our age immense hope for a better and brighter future. In order for us to live in a world that is not burdened by consistent extreme weather, widespread diseases, fatal heat waves, deadly flooding, lethal air quality, and constant civil unrest, immediate action is crucial. Widespread local action and legislation are key to combating the global climate change crisis, and Climate Solutions Now is a powerful step in the right direction. Climate Solutions Now demonstrates Maryland's initiative to create a safer, cleaner, and more sustainable environment for generations to come. We need to take this powerful step, and we need to take it now. Let Maryland be a leader for influential climate change legislation, and let's do our part in battling the climate change crisis.

We applaud Delegate Stein for his commitment to battling climate change and the environment. We strongly advocate for a favorable report on this bill.

Thank you for your consideration on behalf of the Howard County Student Climate Change Ambassadors.

Saketh Sundar of River Hill High School, Oliver Song of Wilde Lake High School, Evan Borodin and Zainab Zarnish of Reservoir High School

HB583 - Climate Solutions Now Act - E&T - Stein -

Uploaded by: Tulkin, Josh

Position: FAV



7338 Baltimore Ave
Suite 102
College Park, MD 20740

Committee: Environment and Transportation
Testimony on: HB583 – “Climate Solutions Now Act”
Position: Favorable
Hearing Date: February 11, 2021

The Sierra Club strongly supports this legislation which would significantly amplify Maryland’s efforts to address the existential climate crisis. We urge a favorable Committee report.

In this testimony, we first highlight the importance of several bill provisions. We then discuss a funding issue raised by the bill which should be addressed by the General Assembly. Lastly, we explain our request that the bill be strengthened by embracing recommendations of the Maryland Commission on Climate Change regarding the electrification of commercial and residential buildings in Maryland.

Increasing Maryland’s GHG emissions reduction mandate to 60% by 2030, and net-zero by 2045

This legislation will put Maryland’s climate action targets in line with what leading scientists say is necessary to avoid the worst impacts of climate change. In 2018, the Intergovernmental Panel on Climate Change (IPCC) – the globe’s leading scientific authority on climate disruption – cited the devastating impacts of global warming above 1.5 degrees Celsius. The IPCC noted the emissions reduction pathway needed to limit warming to no more than 1.5 degrees Celsius, and explained that wealthy nations like the United States must reduce climate-disrupting pollution by 60% by 2030.

Requiring Maryland’s climate mitigation plans to account for the social cost of carbon

The climate changes caused by the exponential growth of greenhouse gas emissions impose economic costs that are real and substantial, but often are not embodied in economic data. These costs are what economists call “negative externalities.” It is essential that they be considered when evaluating the economic impact of state measures aimed at mitigating climate change.

Requiring MDE to use the latest science on methane pollution and leakage rates

It is of the utmost importance that the state assess the effectiveness of its climate action plans using the latest science relating to methane pollution and methane leakage rates. Methane is an extremely potent climate-warming greenhouse gas; it has a warming potential 86 times greater than carbon dioxide in the near-term. Since the IPCC has identified 2030 as a critical year for climate pollution reductions, Maryland should evaluate its climate action plans on the 20-year time horizon for the impact methane has on our climate.

Transitioning the MTA bus fleet to electric buses

These provisions also have been introduced as a stand-alone bill, SB137. Transportation is the number one source of greenhouse gas emissions in Maryland, and transitioning the MTA bus fleet to electric buses will benefit the climate, and also will benefit public health by ridding our air of toxic diesel emissions.

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.



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Suite 102
College Park, MD 20740

Prohibiting the state from counting highway expansion programs as net climate-beneficial

Studies show that the expansion of highways induces demand of additional cars on the road, which leads to the additional consumption of fossil fuels via gasoline and diesel. Accordingly, highway expansions harm the climate, and are not climate beneficial.

Planting and maintaining five million native trees by 2030, including 500,000 in underserved urban areas

Trees are an important means for capturing and reducing the amount of carbon in the atmosphere. They also have multiple other benefits, including filtering polluted runoff and serving as wildlife habitats. Planting trees in underserved urban communities will mitigate urban heat islands, support improved physical and emotional health, and increase property values.

Establishing a Commission on Environmental Justice and Sustainable Communities, and a Just Transition Employment and Retraining Work Group

The Sierra Club, nationally and in Maryland, is committed to the principles of equity, justice, and inclusion, and supports placing these principles at the center of environmental initiatives. These principles include respecting and supporting the rights of workers, regarding their ability to have good jobs, earn a decent living, and enjoy occupational health and safety protections. This bill embraces these principles, and establishes mechanisms to advance them.

SEIF funding

The Strategic Energy Investment Fund (SEIF) is a critical part of Maryland's efforts to respond to the climate crisis in the electricity sector. SEIF is sourced from a variety of programs, including auction revenues from the Regional Greenhouse Gas Initiative (RGGI), and Alternative Compliance Payments (ACPs) from the Renewable Portfolio Standard (RPS).¹ As evidenced by passage of the Clean Energy Jobs Act in 2019, the state is moving away from fossil-fuel generated electricity to clean (typically, wind and solar) energy.

An essential part of the state's transition to a clean energy economy is retiring the state's coal plants, which massively pollute our climate, air, and waters. SB148, the Maryland Coal Community Transition Act of 2021, would set a firm timetable for transitioning Maryland off of coal-powered electricity plants. It also would establish the Fossil Fuel Community Transition Fund to support impacted workers and communities, which initially would be supported with SEIF money. SB148 is a Sierra Club priority bill.

There are several bills before the General Assembly this session, including but not limited to the Coal Community Transition Act and the Climate Solutions Now Act, which would expand the permissible uses of SEIF moneys for climate-related programs. We believe the General Assembly needs to undertake a review that includes all the bills that propose to expand the permissible uses of SEIF moneys, with special

¹ The moneys included in SEIF have been and are growing substantially, in part due to the 2019 update to RGGI, and in part due to slower than expected growth in projects covered by the RPS solar carve-out.



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consideration for SB148. The Climate Solutions Now Act, accordingly, should be considered in this context.

Reducing greenhouse gas emissions from commercial and residential buildings

Maryland's built environment acts as one of the state's largest contributors to climate change. The state, accordingly, must continue to amplify its efforts aimed at energy conservation and efficiency.

EmPOWER Maryland has long been one of Maryland's most important and successful climate action programs. Strengthening the program, including increasing the annual savings target to 3% as proposed in this legislation, is critical. Further still, establishing a new program to ensure energy efficiency and conservation performance standards will put Maryland in line with other leading jurisdictions (like Washington, D.C. and New York City) by achieving deeper reductions from some of our largest energy consumers.

Where this bill falls short, however, is that it does not advance the building sector decarbonization recommendations from the Maryland Commission on Climate Change's 2020 Annual Report. The Commission recommended that the General Assembly reform EmPOWER Maryland to allow gas customers to receive incentives to switch to clean, efficient heat pumps. The direct combustion of fossil fuels in buildings for heating and other appliances accounts for more climate pollution than our coal-fired power plants. The state must begin a serious effort to transition its building stock off of fossil fuel heating systems and appliances. Electrifying our homes and businesses with air- and ground-source heat pumps and induction stoves will reduce climate pollution, decrease harmful indoor air pollution, and put thousands of people to work to retrofit our buildings.

Specifically, we hope the Committee will discuss and consider strengthening the bill by aligning with the following Commission recommendations:

Maryland should enable fuel-switching to let Marylanders choose lowest cost energy systems. The General Assembly should amend section §7-211 of the Public Utilities Article to allow electrification of existing fossil fuel systems through EmPOWER, and direct the Public Service Commission to require electric utilities to proactively encourage customers with propane or oil heating systems to replace those systems with electric heat pumps, especially for homes with central air conditioning, and especially for low income households and consumers. State agencies also should modify programs they manage to facilitate fuel-switching if not already allowed.

Maryland should let EmPOWER facilitate beneficial electrification. The General Assembly should amend §7-211 of the Public Utilities Article to change the core objective of EmPOWER from electricity reduction to a portfolio of mutually reinforcing goals, including greenhouse gas emissions reduction, energy savings, net customer benefits, and reaching underserved customers. In so doing, the Utilities Article should allow for beneficial electrification. Beneficial electrification strategies are those that provide three forms of societal benefits: reduced energy consumption (total source BTUs); lower consumer costs; and reduced greenhouse gas emissions. Beneficial electrification programs should be prioritized first for low-income households and consumers, and should be aligned with other health and safety upgrades to consider a whole-home or whole-building retrofit approach to ensure cost effectiveness and a focus on benefitting underserved homes and businesses first.

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.



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Conclusion

We urge a favorable report on this bill to strengthen and amplify Maryland's climate mitigation programs.

David Smedick
Senior Campaign Representative
David.Smedick@SierraClub.org

Josh Tulkin
Chapter Director
Josh.Tulkin@MDSierra.org

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.

Climate Reality Baltimore Testimony in Favor of th

Uploaded by: Weber, Ted

Position: FAV



Feb. 11, 2021

Testimony in SUPPORT of HB0583 – *Climate Solutions Now Act*

Dear Chairman Barve and Members of the Committee,

The Climate Reality Baltimore Area Chapter supports HB0583, the Climate Solutions Now Act of 2021.

The Climate Reality Project was founded by former US Vice President Al Gore with a mission to confront the climate crisis and point out the need for urgent action to cut greenhouse gas emissions and speed a just transition to clean energy worldwide.

Globally, we are at a critical choice point that will determine the course of our future forever. Climate change is already here, and we are the last generation that will be able to course correct towards a livable future for all. However, we have the tools, resources and knowledge to take action right now.

This bill ensures Maryland will be part of the new green future by:

- Ensuring Maryland is in line with the current climate science by committing us to a 60% reduction in carbon emissions below 2006 levels by 2030 and to reaching net zero emissions by 2045;
- Restructuring our approach to climate justice by mandating that a percentage of all future climate spending must go to disadvantaged communities in terms of climate change, a term to be defined by experts and stakeholders;
- Ensuring that labor voices are represented in our planning process, and that jobs benefit those who need them most; and,
- Taking several immediate steps to reduce emissions, such as planting 5 million native trees by 2030, electrifying state vehicles, and mandating energy efficiency increases.

International experts have urged action on climate with increasing fervor in recent years for good reason: the consequences of staying the course will be highly dangerous. In Maryland, we have a lot at stake, with nuisance flooding, high heat days and storm surges already regular occurrences. We have an opportunity to listen to scientists now while signaling to the nation that Maryland is ready to embrace the new green economy. There is no more time to delay on meaningful climate action.

We encourage a FAVORABLE report for this essential legislation.

Sincerely,

Ted Weber

Chair, Climate Reality Baltimore Area Chapter

climaterealitybaltimore@gmail.com

<https://www.climaterealityproject.org/>

HB0583_ CLimateSolutionsNow_FAV_White-forHoCoCA.pd

Uploaded by: White, Ruth

Position: FAV



HoCoClimateAction.org
Howard County, Maryland

Testimony in SUPPORT of – H.B.583, *Climate Solutions Now Act*

Hearing Date: February 11, 2021

Bill Sponsor: Del. Dana Stein

Committee: Environment and Transportation and Economic Matters

Submitting: Howard County Climate Action

Position: Favorable

[HoCo Climate Action](#) -- a [350.org](#) local chapter and a grassroots organization representing more than 1,450 subscribers, and a member of the Howard County Climate Collaboration -- supports H.B.583, the Climate Solutions Now Act of 2021.

We have been educating ourselves and others in Howard County about the climate crisis for more than 13 years. We have supported climate change legislation at the county, state and federal level with varying degrees of success during this time, often in collaboration with larger coalitions of county and statewide partners. We are excited about the bold commitments in this bill to reduce climate emissions.

Recent state administrations have passed legislation to bring Maryland forward as a climate leader. We saw the disaster fracking has been in Pennsylvania and other states, and we banned it here. But we cannot stop making dramatic improvements. We see our shorelines on the Eastern Shore disappearing and our major cities increasingly unable to handle flooding (Baltimore, Ellicott City, Annapolis and more). Maryland has much at stake, with nuisance flooding, heatwaves and storm surges already regular occurrences. The stronger, unprecedented storms and weather challenge our farmers, our city dwellers, our transportations systems and all our citizens.

Everyone is concerned about health in the era of covid. We know that those who live in areas of high air pollution are more at risk in normal times to asthma, heart disease and other conditions that affect their well-being and lifespan. But in the era of covid, toxins in the air make people more susceptible to disease and possible death from this modern plague.

We have the responsibility to use the available tools, resources and knowledge to take action right now.

This bill would make a Maryland a leader in climate action by:

- **Ensuring Maryland is in line with the current climate science.** The bill commits us to a 60% reduction in carbon emissions below 2006 levels by 2030 and to reaching net zero emissions by 2045
- **Embracing climate justice.** The bill mandates that a percentage of climate spending must go to communities hit hardest by climate change.
- **Ensuring that labor voices are represented in our planning process** and that jobs benefit those who need them most
- **Taking several immediate steps to reduce emissions**, such as planting 5 million native trees by 2030 and electrifying state vehicles. In addition, buildings that receive at least 25% of their funding

from the state must be net zero, with some exceptions for schools, and mandating energy efficiency increases.

The funding provisions of this bill make sense to us. The Strategic Energy Investment Fund will be used, but the bill does not take away from existing SEIF funding percentages. It only uses funds that are above and beyond the usual annual budget for SEIF. Also, the Bay Restoration Fund will be used to enhance existing Department of Natural Resources and Department of Agriculture programs and to create a new Urban Tree Planting program

International experts have urged action on climate with increasing fervor in recent years for good reason: The consequences of staying the course are dangerous. We have an opportunity to heed the warnings of scientists now while signaling to the nation that Maryland is ready to embrace a climate-friendly economy. We can no longer delay meaningful climate action.

We encourage a FAVORABLE report for this essential legislation.

HoCo Climate Action

HoCoClimateAction@gmail.com -

Submitted by Ruth White, Steering and Advocacy Committee, Columbia MD

www.HoCoClimateAction.org

HB583_StrongFutureMaryland_FAV.pdf

Uploaded by: Wilkerson, Alice

Position: FAV



**Testimony in Support of HB 583 – Climate Solutions Now Act of 2021
(Delegate Stein)
FAVORABLE**

February 11, 2021

Dear Chairman Barve, Chairman Davis, members of the Environment and Transportation Committee, and members of the Economic Matters Committee:

On behalf of Strong Future Maryland, we write in strong support of HB 583. Strong Future Maryland works to advance bold, progressive policy changes to address systemic inequality and promote a sustainable, just and prosperous economic future for all Marylanders. We urge you to support this legislation as part of the forward-thinking mandate for climate action favored by the people of Maryland, and for its focus on environmental justice.

Just last week, an international group of scientists released a paper stating the planet is facing a “ghastly future of mass extinction, declining health and climate-disruption upheavals” that threaten human survival because of ignorance and inaction. The 17 experts say the planet is in a much worse state than most people – even scientists – understood.

“The scale of the threats to the biosphere and all its lifeforms – including humanity – is in fact so great that it is difficult to grasp for even well-informed experts,” they write in a report in [Frontiers in Conservation Science](#) which references more than 150 studies detailing the world’s major environmental challenges.

Notably, the impacts of our slowly warming planet are inextricably intertwined with all our other challenges. Climate change impacts the likelihood of future pandemics, climate-induced mass migrations, and battles over resources. It affects Maryland’s agricultural economy, the ability of our biodiversity to thrive, and the health of the Chesapeake and Coastal Bays. As Maryland already faces severe air quality issues, climate change further compromises the health of our residents.

This bill takes critical climate action measures that meet the urgency of this moment in time.

info@strongfuturemd.org

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240-643-0024 | strongfuturemd.org

 @FutureMaryland  @StrongFutureMD

As a country, we are in the midst of a new racial reckoning, and **we must not ignore the disproportionate environmental burdens faced by communities of color and low-income communities.** According to the Environmental Protection Agency, communities of color and low-income communities in the United States are often disproportionately burdened by environmental and public health hazards, and enjoy fewer benefits from environmental programs and natural resources.

According to a [2015 report](#) from the Environmental Law Clinic of the University of Maryland Francis King Carey School of Law, socioeconomically disadvantaged and African American communities in Maryland bear a disproportionate burden of cancer risk from air toxics exposure and are also more likely to live in close proximity to toxic releasing facilities like incinerators. The American Lung Association 2020 [“Road to Clean Air” report](#) gives Maryland abysmal grades for smog or ozone pollution, including F's for both Baltimore and Prince George's County. Across Baltimore, the hottest areas tend to be the poorest and that pattern is not unusual. In dozens of major U.S. cities, low-income neighborhoods are more likely to be hotter than their wealthier counterparts.

At the same time, by all accounts, Maryland is severely lacking when it comes to having policies on the books that advocate for Environmental Justice. The most important note from the aforementioned 2015 report: is that most of the formal recommendations made to the General Assembly languished over the period of 1999-2015. The Law Clinic states:

“Maryland should adopt a more systematic and transparent approach to addressing environmental justice issues, including requiring each state agency to develop an environmental justice strategy and regularly report on its progress. The state should also create an Office of Environmental Justice to coordinate and support environmental justice efforts, expand community representation on the Commission on Environmental Justice, and develop new policies to address and prevent environmental injustice.”

While this legislation does not exactly mirror the recommendations in the report, it places the state on a strategic path towards addressing environmental justice. Specifically, it charges the Commission on Environmental Justice and Sustainable Communities with determining what percent of Maryland's climate funding must be spent in overburdened, underserved communities that are disproportionately impacted by climate change emissions.

In addition, this bill establishes targets that are in line with recommendations from the Intergovernmental Panel on Climate Change (IPCC), made up of the leading climate scientists in the world.

Maryland must do more for climate action — in the name of environmental justice, for the health of our communities, and for the future of our families. This committee can make a commitment to that work by issuing a favorable report on HB 583.

John B. King Jr.
Founder and Board Chair

Alice Wilkerson
Executive Director

HB0583-FAV-TPMEC-ClimateSolutionsNow_2.11.21.docx

Uploaded by: Younts, Diana

Position: FAV

TAKOMA PARK MOBILIZATION

Environment Committee

Committee: Environment & Transportation
Testimony on: HB0583 - “Climate Solutions Now”
Organization: Takoma Park Mobilization Environment Committee
Person Submitting: Diana Younts, Co-chair
Position: Favorable
Hearing Date: February 11, 2021

Dear Mr. Chairman and Committee Members,

We are testifying today to urge you to vote favorably for HB0583. Takoma Park Mobilization Environment Committee is a grassroots organization focused on State and County level climate action. We support HB0563 because it would bring Maryland into alignment with the most recent scientific recommendations for addressing climate change, fixes Maryland’s flawed draft greenhouse gas (GHG) reduction plan, ensures that communities disproportionately burdened by environmental pollutants and other hazards are an integral part of the solution to climate change, and provides a just transition for workers. In our testimony, we would like to focus on how the bill also supports Montgomery County’s ambitious Climate Action Plan.

HB0583 Supports Montgomery County’s Climate Action Plan (CAP): Montgomery County has committed to reducing its greenhouse gas emissions by 80% by 2027 and 100% by 2035 and has issued its draft Climate Action Plan outlining the steps to achieve that goal. Here are some of the ways HB0583 complements and supports Montgomery County’s CAP and helps significantly in achieving the County’s greenhouse gas reduction goals.

- Increasing the State GHG reduction goals thereby narrowing the gap between County and State goals.
- Increasing State energy efficiency requirements from 2 % to 3 % which will provide more funding for County building energy efficiency improvements.
- Providing funding from the State Transportation Trust Fund for zero emission public transit buses.
- Providing funding from the Chesapeake Bay Restoration Fund for ambitious tree planting with a carve-out for urban areas that can help with County carbon sequestration and heat adaptation goals.
- Providing loans for net zero school buildings from the State Strategic Energy Investment Fund which can help electrify County schools.
- Providing a personal property tax exemption for community solar projects located on rooftops, parking lots, or brownfields that primarily benefit low-income households, thereby incentivizing community solar in the County.
- Supporting environmental justice and economic goals by requiring the Maryland Commission on Environmental Justice and Sustainable Communities to identify communities disproportionately impacted by climate change and to set a percentage of state climate funds that must be spent in those communities, and by creating a new Work Group to make policy recommendations for how to best serve transitioning fossil fuel workers in Maryland.

For these reasons we urge you to vote favorably for HB0583.

HB583-FAV-CJW-ClimateSolutionsNow (1).pdf

Uploaded by: Younts, Diana

Position: FAV



Committee: Environment & Transportation
Testimony on: HB583 - “Climate Solutions Now”
Organization: MLC Climate Justice Wing
Person
Submitting: Diana Younts, co-chair
Position: Favorable
Hearing Date: February 11, 2021

Dear Mr. Chairman and Committee Members,

Thank you for allowing our testimony today in support of HB0583. MLC’s Climate Justice Wing is a statewide coalition of over 50 grassroots and grasstops organizations focused on getting State level climate justice legislation passed. Each bill for which we advocate is evaluated through an equity lens, with a particular focus on how disadvantaged communities are affected by the bill and the bill’s climate impact.

We strongly urge a favorable report on this legislation. The planet is facing a climate crisis and the response from Maryland and other wealthy nations must be immediate and ambitious. And, importantly, we must ensure that those communities disproportionately burdened by the cumulative impact of environmental pollution and other hazards be an integral part of shaping our solutions.

Important reasons to support the Climate Solutions Now bill include:

Maryland Commission on Environmental Justice and Sustainable Communities: The bill establishes a 20 member commission, two of whom must be representatives of disproportionately affected communities. The Commission will develop specific criteria for identifying communities disproportionately affected by climate change, develop specific recommendations to address environmental justice concerns, reduce greenhouse gasses and co-pollutants, build climate equity and resilience within disproportionately affected communities, and set a percentage of state funds to be spent for the benefit of those disproportionately affected communities.

Job Creation: The bill encourages new opportunities for employment in greenhouse gas reduction technologies, alternative energy supply and energy conservation, particularly in areas experiencing high unemployment or high rates of poverty. The bill will lead to creation of jobs, including in the energy, building, working lands, and transportation sector.

Worker Justice: The bill requires a new Work Group to convene with representatives from labor, legislators, the Secretary of Labor's office, climate groups, and renewable energy companies to make policy recommendations and develop strategies for how to best serve fossil fuel workers in Maryland and create transitions to jobs created by climate change.

Tree Planting with Carve-Out for Urban Areas: The bill provides funding from the Chesapeake Bay Restoration Fund for ambitious tree planting with a carve-out for urban areas that can help with heat islands in underserved communities.

Community Solar for Low-Income Households: The bill provides a personal property tax exemption for community solar projects located on rooftops, parking lots, or brownfields that primarily benefit low-income households.

For these reasons we urge you to vote favorably for HB0583.

MLC Climate Justice Wing:

Maryland Legislative Coalition
MD Campaign for Environmental Human Rights
Chesapeake Climate Action Network
WISE
Frack Free Frostburg
Mountain Maryland Movement
Clean Water Action
Maryland Sierra Club
Howard County Indivisible
Howard County Sierra Club
Columbia Association Climate change and
sustainability advisory committee
HoCo Climate Action
CHEER
Climate XChange - Maryland
Mid-Atlantic Field Representative/
National Parks Conservation Association
350 Montgomery County
Glen Echo Heights Mobilization
The Climate Mobilization Montgomery County
Montgomery County Faith Alliance for
Climate Solutions

Montgomery Countryside Alliance
Takoma Park Mobilization Environment Committee
Audubon Naturalist Society
Cedar Lane Unitarian Universalist Church
Environmental Justice Ministry
Coalition For Smarter Growth
DoTheMostGood Montgomery County
MCPS Clean Energy Campaign
MoCo DCC

Potomac Conservancy
Casa de Maryland
Nuclear Information & Resource Service
Clean Air Prince Georges
Ji'Aire's Workgroup
Laurel Resist
Greenbelt Climate Action Network
Maryland League of Conservation Voters
Unitarian Universalist Legislative
Ministry of Maryland
Concerned Citizens Against Industrial Cafos
Wicomico NAACP
Chesapeake Physicians for Social Responsibility
Chispa MD
Climate Law & Policy Project
Poor Peoples Campaign
Labor for Sustainability
The Nature Conservancy
Clean Air Prince Georges
350 Baltimore
Maryland Campaign for Human Rights
Power Shift Network

HB583-FAV-CJW-ClimateSolutionsNow (2).pdf

Uploaded by: Younts, Diana

Position: FAV



Committee: Environment & Transportation
Testimony on: HB583 - “Climate Solutions Now”
Organization: MLC Climate Justice Wing
Person
Submitting: Diana Younts, co-chair
Position: Favorable
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Poor Peoples Campaign
Labor for Sustainability
The Nature Conservancy
Clean Air Prince Georges
350 Baltimore
Maryland Campaign for Human Rights
Power Shift Network

house testimony on climate solution.PDF

Uploaded by: allen, gary

Position: FWA

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February 11 ,2021

SUPPORT with amendments HB0583- SB 0414 Climate Solutions Now Act of 2021

Dear Mr. Chairman and members of the Environment and Transportation Committee

GARY G. ALLEN
President

ERIC SPRAGUE
Vice President for
Development

SANDRA SPARKS
Vice President for
Communications

DAWN BALINSKI
Treasurer

Secretary

Directors
JIM BARDSLEY
PETER BECKER
GLENN FERENSCHAK
DAVID KEANE
WAYNE LUCAS
JOLI A. MCCATHRAN
BILL REES
DON VAN HASSENT

The Bill before you are a defining set of actions to address and mitigate the relentless rise in CO2 emissions and the accompanying changes to long term weather patterns called climate. These effects can be addressed through near-term mitigation actions and through long term adaptative behavior. Taken together and looked at strategically, they form the basis for the bill as drafted. While not perfect and not sufficient without accompanying actions in other states. This bill is a bold, ambitious and essential set of actions to strengthen and prioritize state programs to address CO2 reduction.

We are particularly mindful of the role trees can play in the work. The benefits of tree planting for water and air quality are widely known and supported. Trees are no less important as a natural carbon sink and properly sited and managed through the practice of good silva culture to resist the many emerging threats to their health and growth offer a proven, affordable and essential component to our state's climate strategy. Planting and managing millions more trees will provide a steady stream of economic and health benefits for Maryland families both now and in the future. Ample opportunity exists for planting throughout the . Attached you will find a data recently developed by the Department of Natural resources to affirm our confidence in the efficiency of the goal set in this legislation.

We think the legislation could be significantly strengthened by at least three changes. **ONE** On 17 page 42 the 5 million Team coordinator should read the **Department of Natural Resources not the Department of the Environment**. That is the agency with the field network (local foresters) the agency mission and staff expertise (including the contractors in line 20 for this work. It's also where the program resources (Trust Fund) come from. Stakeholders should not be focused on the current named leadership or future carbon markets all these will change in the years ahead but the responsibility and accountability will not. The current language creates confusion and needless inter-agency gaps.



February 11 ,2021

SUPPORT with amendments HB0583- SB 0414 Climate Solutions Now Act of 2021

Page two

TWO-We further recommend page 47 at line 12 add

A number 5.landowners participating in this program are expected to practice accepted silva culture management to sustain the health and maturity of trees planted.

This change should alleviate concern about the tree removal on lands planted for 15 years or more. Fifteen years frames the parameters for the present carbon market. Not all landowners will want to participate in such markets. That should NOT be a barrier for planting trees under this program. We have found a 10 -year stewardship agreement very effective in securing broad participation in our statewide tree planting work. A 15 fifteen-year commitment may be. A 15 year forest management plan offering local property tax incentives is a better tool. To achieve this **THREE**These five provisions for 15 years should not be mandatory for all participants.

We would be please to provide greater detail on appropriate management and maintenance strategies based on our work across the state.

We strongly support a favorable report on the “Climate Solutions Now Act of 2021” with these changes. . Maryland needs to pass legislation to plant more trees. manage them for health and growth and mitigate the growing impact of climate change.

Respectfully,

Gary G. Allen
President, Maryland Forestry Foundation
marylandforestryfoundation.org

GARY G. ALLEN
President

ERIC SPRAGUE
Vice President for
Development

SANDRA SPARKS
Vice President for
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Potential Tree Planting Opportunity

Purpose

This project was commissioned by SB729 in 2019, “Technical Study on Changes in Forest Cover and Tree Canopy in Maryland”, which requested data on several different aspects of tree canopy in Maryland. The goal of this layer is to identify areas in Maryland that could potentially have tree planting projects. The layer overestimates the total available area for tree planting. It would be nearly impossible to account for every type of land use or ownership that might prevent a tree planting project from happening. This layer does not consider all powerlines, locations of septic systems, or land ownership, all which would be important to consider before starting a tree planting project. Instead, this layer broadly identifies spots that are likely to be good locations for tree planting projects based on their land cover and land use.

We estimate that only about of third of unforested "potential planting" sites are actually practical for tree planting, with an unknown amount where landowners are interested in planting. Given that, this layer is best used for narrowing down locations for tree planting projects. It can also be combined with other, more local/specialized layers, like green infrastructure, to provide a more focused look at potential tree planting opportunities in specific areas.

Methods

Tree planting opportunity was estimated for each county in Maryland using ArcMap v 10.4. Using the Chesapeake Conservancy’s 2013/2014 high resolution land cover data, land cover classifications that were suitable for tree planting, low vegetation and barren, were identified to create the target layer. Spatial data that might be classified as low vegetation or barren in a land cover analysis but are not suitable for planting trees were identified so they could be removed; these layers will be further refer to as exclusion layers. This included airports, beaches, Ecologically Sensitive Areas (ESAs)/ rare species habitat, agricultural areas on prime farmland, Important Bird Areas as identified by the Audubon Society, areas under major power lines, railroads, wetlands, areas directly around buildings, and areas that would be inundated with a 4ft sea level rise. See table 1 for details about data sources how the different layers were processed. All patches of tree planting opportunity that were less than 10 meters in width and 100 square meters in area were removed.

Layers	Layer Type	Sources (Data Year)	Processing
Land Cover	Target	Chesapeake Conservancy High Resolution Land Cover (2013)	Isolate low vegetation and barren land classifications to create target layer
Airports	Exclusion	"Maryland Transit - Airports"- imap (2019); Parcel Data (2013-2015)	Identified airport locations with imap point data, parcels that those points landed in were identified as airports.
Beaches	Exclusion	MDP Land Use/Cover Data (2010)	Identified areas classified as "Beach" in land cover data set
Ecologically Sensitive Areas/ Rare Species Habitat	Exclusion	DNR Internal Data (2020)	NA
Agricultural Area on Prime Farmland	Exclusion	MDP Land Use/Cover Data (2010); "Maryland SSURGO Soils - SSURGO Soils" – imap (2019); National Hydrology Dataset (NHD) (2016)	Identified agricultural land using the MDP land cover data set and "Prime Farmland"/ "Farmland of Statewide Importance" with the SSURGO data set. Calculated where they overlap and removed 100ft stream buffers based on NHD data.
Grassland Important Bird Areas (IBAs)	Exclusion	National Audubon Society (2020)	NA
Power lines	Exclusion	"Electric Power Transmission Lines"- Homeland Infrastructure Foundation-Level Data (2019); Parcel Data (2013-2015)	Created 20m buffer around power lines and identified and parcels owned by power companies in parcel data, merged the two layers
Railroads	Exclusion	"TIGER/Line Shapefile, 2015, nation, U.S., Rails National Shapefile"- Data.gov (2015)	Created 10m buffer around railroads
Wetlands	Exclusion	DNR Internal Data (2010)	Isolated wetlands that are not ponds or rivers, created 100ft buffer around remaining wetlands
Buildings	Exclusion	Microsoft (2019)	Created 15ft buffer around all buildings
4ft Sea level rise	Exclusion	DNR Internal Data (2020)	NA

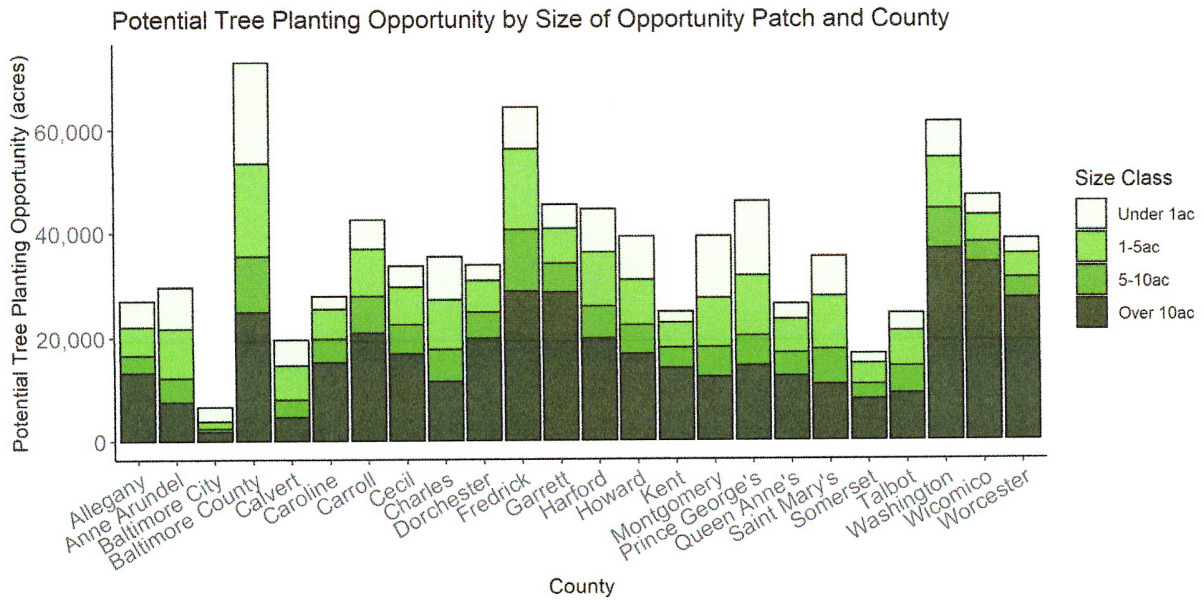
Table 1. Data sources and processing for all layers used the analysis

Results

We identified 883,257 acres of tree planting opportunity and 707,796 acres of forest planting opportunity (tree planting opportunity patches larger than 1 acre and 120ft wide) in Maryland.

Of that planting opportunity, 143,285 acres are within the upper 50% of census block groups ranked by percent minority population, 384,565 acres are within the upper 50% of census block groups ranked by percent low income population, and 419,636 acres are within the upper 50% of census block groups ranked by percent of population with less than a high school degrees. There are 50,682 acres of potential tree planting opportunity where the above 3 categories overlap.

*See attached excel sheet for more detailed breakdown of data by County



County	Total Area (acres)		Critical Area		300ft Stre
	Tree Planting Opportunity	Forest* Planting Opportunity	Tree Planting Opportunity	Forest* Planting Opportunity	Tree Planting Opportunity
Allegheny	27,120.46	22,028.36	-	-	5,898.65
Anne Arundel	29,683.45	21,623.09	3,345.28	2,123.74	3,696.20
Baltimore City	6,570.33	3,776.23	459.00	344.73	902.28
Baltimore County	73,028.40	53,326.54	4,071.31	2,598.00	12,386.93
Calvert	19,623.09	14,448.36	2,858.75	2,079.81	1,231.96
Caroline	27,914.02	25,260.22	1,885.41	1,570.48	10,492.40
Carroll	42,509.94	36,835.94	-	-	8,431.20
Cecil	33,687.43	29,592.32	3,239.67	2,707.18	5,303.37
Charles	35,487.77	27,115.01	3,218.74	2,597.94	3,325.72
Dorchester	33,854.87	30,786.07	8,995.05	7,711.04	10,132.69
Frederick	64,307.50	55,933.34	-	-	16,460.92
Garrett	45,420.26	40,711.65	-	-	5,180.56
Harford	44,486.20	36,100.81	4,116.46	3,567.98	5,795.18
Howard	39,197.77	30,836.74	-	-	7,894.11
Kent	24,882.80	22,714.88	5,536.85	4,722.47	6,630.59
Montgomery	39,280.45	5,750.28	-	-	9,230.31
Prince George's	46,038.34	31,540.02	987.48	750.60	5,344.46
Queen Anne's	26,376.67	23,240.62	8,804.64	7,301.94	5,830.31
Somerset	16,734.40	14,652.78	4,387.87	3,727.11	3,894.40
St. Mary's	35,362.11	27,740.38	6,966.15	5,429.53	4,612.15
Talbot	24,536.90	20,929.69	8,863.95	7,205.99	6,632.85
Washington	61,405.60	54,166.52	-	-	13,433.72
Wicomico	47,078.83	43,037.69	2,931.26	2,483.46	8,524.70
Worcester	38,668.98	35,648.06	4,182.93	3,577.55	18,126.15
TOTAL	883,256.55	707,795.60	74,850.81	60,499.55	179,391.81

Stream Buffer Forest* Planting Opportunity	100ft Stream Buffer		Tree Planting Opportunity on		*Forest planting oppor
	Tree Planting Opportunity	Forest* Planting Opportunity	Protected Lands	Tree Planting Opportunity on Private Lands	
4,480.10	1,896.91	1,402.11	2,066.11	22,230.13	
2,565.99	784.00	532.71	6,510.56	22,972.17	
606.52	215.66	130.83	1,388.16	3,388.31	
9,365.90	4,007.34	3,010.46	14,626.65	60,061.86	
899.72	156.06	113.45	3,304.93	17,641.66	
9,749.96	5,654.35	5,422.97	4,302.19	26,236.47	
7,420.20	2,421.43	2,136.41	5,431.70	37,956.02	
4,747.48	1,427.78	1,294.60	4,190.34	29,986.04	
2,542.01	652.98	496.18	4,645.91	31,052.61	
9,494.06	5,575.47	5,384.61	4,624.89	31,478.51	
14,592.89	6,094.58	5,489.03	6,373.04	57,226.69	
4,365.54	1,454.07	1,138.61	2,981.49	42,413.38	
4,838.03	1,694.33	1,393.95	14,288.01	32,787.08	
6,278.82	2,241.27	1,810.88	8,355.85	32,176.44	
6,204.72	2,449.65	2,330.78	5,607.25	23,370.64	
1,532.52	2,617.89	441.27	12,098.29	29,774.88	
3,350.27	1,313.99	741.86	7,221.57	33,126.55	
5,228.46	2,352.94	2,221.60	6,578.56	23,790.98	
3,499.48	1,901.91	1,775.05	1,787.98	15,471.20	
3,618.91	847.96	682.07	3,422.67	32,407.88	
5,852.80	2,983.06	2,758.79	2,877.47	22,246.96	
12,151.43	5,107.38	4,687.49	6,414.47	54,696.45	
8,011.38	3,497.47	3,369.69	3,478.17	44,071.48	
17,220.62	10,057.22	9,776.10	4,169.59	35,564.36	
148,617.81	67,405.69	58,541.48	136,745.81	762,128.74	

tunity is tree planting opportunity patches over 1 acre in area and 120ft wide

HB0583-ENV_MACo_SWA.pdf

Uploaded by: Butler, Alex

Position: FWA



House Bill 583

Climate Solutions Now Act of 2021

MACo Position: **SUPPORT**
WITH AMENDMENTS

To: Environment and Transportation and
Economic Matters Committees

Date: February 11, 2021

From: Alex Butler

The Maryland Association of Counties (MACo) **SUPPORTS HB 583 WITH AMENDMENTS**. The bill places significant burden on county governments to carry out a new state policy requiring that new school buildings be “solar-ready,” and requires local government to forego tax revenue for certain community solar projects. MACo amendments would achieve the objective of the bill by influencing school construction design and also providing needed assistance for project development.

HB 583 would place a costly mandate on county governments to design, engineer, and build new school buildings that could readily accept solar panels. MACo believes that the State should take similar action to what was done when the State mandated High Performance Buildings - that legislation created a state cost share for new requirements, leading to better buildings without unduly burdening counties with prohibitively expensive upfront expenditures. The most effective method would be to require that the State share in the costs of making a school facility “solar-ready,” in addition to its standard calculated cost developed by anticipated school population. The State share for these costs should be the amount determined for the host county under COMAR Section 14.39.02.05 - State Cost Share Percentage. Without the addition of a similar cost share arrangement, the State share would continue to only be calculated based on cost per square foot and would not incorporate the substantial costs of requiring solar-ready buildings.

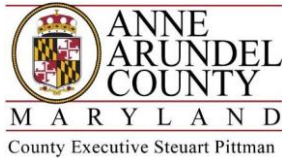
HB 583 would also exempt certain community solar energy generating systems from county or municipal personal property tax. MACo understands that the solar industry is asking that the bill be amended to remove the requirement that the generating system provide energy for low or moderate-income individuals, and instead exempt all community solar projects from personal property tax, provided they are on rooftops, parking lots, roadways, or brownfields sites. Mandated tax exemptions require counties to forego meaningful local revenues to support essential public services, even if the exemptions do not serve their best interests. MACo advocates that the bill be amended to remove local tax exemptions.

The bill, as written, represents a significant unfunded mandate for county governments. Accordingly, MACo urges the Committee to issue a report of **FAVORABLE WITH AMENDMENTS** for HB 583.

AACounty_FWA_HB0583.pdf

Uploaded by: Johnston, Matthew

Position: FWA



February 11, 2021

House Bill 0583
Climate Solutions Now Act
Committee: Environment and Transportation

Position: FAVORABLE WITH AMENDMENTS

This bill provides a comprehensive strategy to combat greenhouse gas emissions that contribute to real, tangible climate change impacts facing current and future residents of Anne Arundel County. The Anne Arundel County Administration believes the bill's combination of energy efficient building standards, emission reduction targets, renewable energy incentives, fleet conversion requirements, aid to local governments and school districts and a groundbreaking urban and rural tree planting campaign represent the most comprehensive statewide strategy to date to reduce greenhouse gas emissions, lower temperatures in urban areas and usher in a new, greener and more resilient economy.

Climate change is having real, measureable impacts on Anne Arundel County residents and businesses today, and mitigating greenhouse gas emissions everywhere is critical to preventing even worse climate impacts for future generations. In 2019, the City of Annapolis recorded 18 high-tide, or "nuisance" flooding events. A 2019 report¹ by the National Oceanic and Atmospheric Administration (NOAA) predicts the City could experience such events every other day by 2050 due to rising sea levels. And the Maryland Department of Transportation estimates that many coastal communities within Anne Arundel County could find themselves within regulated floodplains due to sea level rise by 2050 and 2100.²

Comprehensive strategies, such as those called for in this bill, are needed to mitigate the harm climate change will have on our communities. Anne Arundel County has also taken steps to mitigate emissions locally, including recently passing legislation requiring the County to transition to zero-emission vehicles. However, these transitions are costly and will take a significant amount of time if additional funding is not provided to local governments. For this reason, the Administration encourages the sponsors and members of the Committee to consider amendments to the bill that would provide grants to local governments to fund fleet conversion infrastructure feasibility studies, charging infrastructure construction and the difference in costs between conventional and zero-emission vehicles.

For all these reasons, the Anne Arundel County Administration requests a **FAVORABLE WITH AMENDMENTS** vote on HB 0583.

¹ NOAA. 2019. 2019 State of US High Tide Flooding with a 2020 Outlook: NOAA Technical Report NOS CO-OPS 092. Available at:

https://tidesandcurrents.noaa.gov/publications/Techrpt_092_2019_State_of_US_High_Tide_Flooding_with_a_2020_Outlook_30June2020.pdf.

²Maryland Department of Transportation. 2016. GIS Data Products to Support Climate Change Adaptation Planning: Anne Arundel County, Maryland. Available at:

<https://www.esrgc.org/documents/resources/reports/GIS%20SLC%20Report%20-%20Anne%20Arundel.pdf>.

HB0583 FWA.pdf

Uploaded by: Marcin, Daniel

Position: FWA

HB0583: Favorable with amendments

Hello committee members.

I would like to ask you to support HB0586, the Climate Solutions Now Act. However, I would ask you to make one minor amendment. The title clearly needs to be changed to the “Climate Solutions In A While Act.” This bill creates committees and asks them to do things that they have consistently failed to do in the past, and asks for their recommendations that the General Assembly will surely balk at. Go ahead and pass it, because planting trees and buying some electric vehicles is better than not doing it, but don’t fool yourselves. This bill will not solve the climate crisis and doesn’t make the tough decisions that are needed.

In coverage at [Maryland Matters](#), the Senate bill sponsor, Senator Pinsky, said, “Not tomorrow, not next year, not the year after. We have no time to waste.” Unfortunately, this bill’s solution is to ask commissions to make reports. And those reports don’t arrive: “The commission was supposed to release an annual report last month, but that was delayed.” Furthermore, the bill’s sponsors, Senator Pinsky and Delegate Stein, “decried the Maryland Commission on Climate Change — on which Pinsky serves — and the Maryland Department of the Environment for offering vague recommendations instead of specific action items. MDE drafted a greenhouse gas reduction plan in 2019, with a goal of reducing emissions by 44% by 2030.” So why does this bill ask MDE to do it again?

This bill is an excellent example of dillydallying and asking others to do what you don’t want to do. Do you want to know what to do? Tax carbon, and ensure that those polluting have to pay. Eliminate or broadly simplify zoning, so that residential and commercial can be efficiently located without regulatory hassle or bans. Toll every Maryland highway. Make roads safe for pedestrians and bicyclists, scooters and wheelchairs, strollers and joggers. Tax the polluting byproducts of coal burning. Why should Maryland’s coal plants get to emit their mercury, lead, arsenic, sulfur, and NOx for free? Put a price on it.

There, now you know what to do. I look forward to anybody interested in climate solutions “now” to enact them. Go ahead and pass this and plant some trees and buy some electric vehicles, but it’ll be woefully insufficient.

Daniel Marcin
Economist
Wheaton, MD

HB583 CHESSA FWA.pdf

Uploaded by: Murray, David

Position: FWA



**Before the General Assembly of the State of Maryland
House Environment and Transportation Committee
February 11, 2021**

**Testimony of David W. Murray
Executive Director
Chesapeake Solar & Storage Association
HB 583: Climate Solutions Now Act of 2021
FAVORABLE WITH AMENDMENTS**

Thank you for the opportunity to provide testimony on HB 583. I serve as Executive Director of the Chesapeake Solar & Storage Association, CHESSA, formerly known as the Maryland-DC-Virginia Solar Energy Industries Association (MDV-SEIA). CHESSA is the local trade association representing over 4,500 solar installers, developers, manufacturers, and other solar workers in Maryland. Our members also provide energy storage solutions to households, businesses, schools, local governments, and utilities throughout the region. CHESSA is a recognized state affiliate of the Solar Energy Industries Association.

CHESSA is broadly supportive of this transformative legislation that places Maryland on a stronger path to addressing climate change. This legislation prioritizes equity and a just transition away from fossil fuels. These elements fundamental toward achieving a 100% clean energy economy. We applaud Delegate Stein and fellow sponsors of this landmark legislation for their leadership and dedication toward our clean energy economy.

Given this legislation is broad in scope, the following testimony will solely comment on the parts of the legislation that directly affect the solar industry.

Solar-Ready Rooftops: CHESSA supports HB 583 encouraging solar-ready rooftops throughout the state. Given that the structure, shading and orientation of the roof may make a project infeasible, these provisions help facilitate greater rooftop solar deployment on new buildings. Not only will this save building owners – which often are the state or county– critical funds in the long term, but will help Maryland achieve its ambitious in-state solar energy goals by 2030.

CHESSA makes a minor recommendation to this section, adding on page 24, Line 1 “...panels-
AND PRIORIZES PANEL PLACEMENT ON THE SOUTH SIDE OF THE ROOF.”

Reallocation of SEIF Monies: HB 583 proposes to ringfence at least \$500,000 from renewable energy projects to the Healthy Soils Program. The Healthy Soils Program is in essence an agricultural program. Carbon sequestration is just one of several Healthy Soils Program goals, the first listed in its authorizing legislation is to “Improve the health, yield, and profitability of the soils of the State.” CHESSA does not believe that ringfencing funds from the SEIF is an appropriate use of the fund, as the Healthy Soils Program does not reduce fossil fuel consumption, reduce energy burdens on Maryland’s most vulnerable citizens, or increase clean



energy generation. Given we are far from our 2030 goal of generating 50% of our electricity from renewable resources, its vital we do not direct funds from clean energy deployment. CHESSA proposes striking Lines 13-16 on Page 35.

Community Solar Deployment: Since the community solar program's inception in 2015, solar developers have been unsure whether rooftop community solar arrays are exempt from personal property taxes. Given this financial uncertainty, many community solar projects have not been pursued on rooftops, as a personal property tax liability makes the project more expensive. Without clarification from the General Assembly, the association doubts that community solar developers will target rooftops for this type of deployment, due to the increased costs of installation.

Should the General Assembly clarify that any community solar array built where there is existing electric load (ie. building rooftops and parking lots) and brownfields are exempt from personal property tax, it would facilitate greater deployment of projects of these types. We applaud HB 583 for including this important provision.

However, lines 22-25 on Page 39 solely apply this exemption to community solar arrays serving at least 51% of low- or moderate-income customers. The association believes all solar arrays sited where there is existing electric load should be exempt from personal property tax, regardless of the subscribers. Thus, CHESSA recommends striking "THAT SERVES MORE THAN 51% OF KILOWATT-HOUR OUTPUT TO LOW- OR MODERATE-INCOME CUSTOMERS, AS DEFINED IN REGULATIONS OF THE PUBLIC SERVICE COMMISSION."

Thank you for your consideration.

Sincerely,

David Murray
Executive Director
Chesapeake Solar & Storage Association (CHESSA, formerly MDV-SEIA)

Jason Ascher - Oppose HB 583 .pdf

Uploaded by: Ascher, Jason

Position: UNF

MID-ATLANTIC PIPE TRADES ASSOCIATION



PLUMBERS - STEAMFITTERS - SPRINKLER FITTERS
PIPE FITTERS - PIPE WELDERS - HVAC SERVICE TECH

**7050 Oakland Mills Road
Suite 180
Columbia, MD 21046**

**Phone: 410-290-3890
www.midatlanticpipetrades.org**

Maryland House of Delegates – Environment and Transportation Committee

TO: Delegate Kumar Barve, Chair; and Members of the Environment and Transportation Committee

FROM: Jason Ascher, Political Director – Mid-Atlantic Pipe Trades Association

Oppose HB 583 – Climate Solutions Now Act of 2021

On behalf of the Mid-Atlantic Pipe Trades Association and our over 20,000 members and families from United Association Locals across Maryland, I ask that you **OPPOSE HB 583**.

This legislation appears to want to get Maryland to net-zero carbon emission by 2045 and protect the workers who will need to transition from building and maintaining this infrastructure with a “Just Transition.” The problem is it lacks in both areas.

To start, if the government wants us to transition from fossil fuel, then the government should lead. This legislation exempts most public schools and older government buildings from being retrofitted.

Second, you need to allow **ALL** renewable energy types like carbon capture and nuclear and not limit wind and solar options.

Finally, if you want to have a “just transition” for workers, you need to ensure funding to take care of workers. Retraining workers is all well and good, but workers in the fossil fuel industry typically earn \$40-\$60 per hour, while the jobs in renewable energy pay half that. You need to consider the workers that are close to retirement. These workers have spent decades working hard with the promise of a sound retirement. This legislation does not ensure the funding necessary to make sure these promises are no abandoned.

For the reasons discussed above, I ask you to **oppose HB 583**.

Sincerely,
Jason Ascher
Political Director
Mid-Atlantic Pipe Trades Association

Plumbers and Gasfitter Local 5 – Camp Springs, MD
Plumbers and Steamfitters Local 10 – Richmond, VA/Roanoke, VA
Plumbers and Pipefitters Local 110 – Norfolk, VA
Road Sprinkler Fitters Local 669 – Columbia, MD

Plumbers and Steamfitters Local 486 – Baltimore, MD
Plumbers and Steamfitters Local 489 – Cumberland, MD
Steamfitters Local 602 – Capitol Heights, MD

HB 583 - Climate Solutions Now Act - NAIOP Testimo

Uploaded by: Ballentine, Tom

Position: UNF



February 9, 2021

The Honorable Kumar P. Barve, Chair
House Environment and Transportation Committee
House Office Building, Room 251
6 Bladen St., Annapolis, MD 21401

Oppose: HB 583 – Climate Solutions Now Act of 2021

Dear, Chair Barve and Committee Members:

The NAIOP Maryland Chapters represent 700 companies involved in development and ownership of commercial, mixed-use, and light industrial real estate, including some of the largest property owners in the state. NAIOP's membership is comprised of a mix of local firms and publicly traded real estate investment trusts that are invested in the future of Maryland but also have experience in national and international markets.

Success in climate mitigation fits the ambition and values of commercial real estate. For decades, NAIOP's member companies have been dedicated to energy efficiency, conservation, and high-performance construction. That commitment is one of the primary reasons that for 20-years Maryland has been among the top ten states in the country for LEED certified buildings. This experience leads NAIOP to consider deep reductions in carbon emissions from buildings to be the most challenging of the sectors.

Meeting Maryland's 2050 greenhouse gas reduction goals in a way that is affordable to the consumer, maintains quality of life and ensures a stable transition of energy and economic markets will require coordinated action across every level of government, by utility operators, regulators, NGOs, consumer advocates, homeowners, and businesses.

NAIOP submitted testimony in support of the Greenhouse Gas Reduction Act [GGRA] in 2009 and again for its reauthorization in 2016. HB 583 proposes changes to the economic benefit test in the GGRA that are consequential departures from the bill NAIOP supported. The bill's focus on eliminating building energy use would divert capital and effort away from directly reducing carbon emissions. Its prescriptive approach to the building sector would displace a framework for developing cost effective building sector strategies endorsed by the Climate Commission during the interim. While net zero energy buildings are technically possible, the trade-offs required can be contrary to transportation and Smart Growth goals. By prescribing means and methods the bill will discourage, sometimes prevent the use of least-cost compliance options in the building sector and the broader economy. The bill imposes more stringent requirements on private buildings than government buildings. NAIOP therefore cannot endorse HB 583 and offers the following information, and observations for the General Assembly to consider.

+ Zero Energy Balance Buildings – Definitions, Challenges and Trade-offs

Requiring Zero Energy Balance buildings prioritizes eliminating energy use which diverts from measures that directly reduce greenhouse gas emissions. Focusing on eliminating energy use will provide fewer emissions reductions at higher cost as utilities accelerate the transition to low carbon electric generation.

A Zero Energy Balance building is designed to use half or one third of the energy a conventional building would require. The balance of the building's energy need is met through on-site renewable energy generation and off-site power purchase agreements. The LEED Zero Energy Balance certification specified in the bill requires not only that energy consumed on-site be offset but also that energy lost during transmission from the generating source be offset as well. This increases the amount of energy the building must offset to 2-3 times the amount of energy consumed on site.

Large buildings, and high energy uses like hospitals, data centers and restaurants will find it extremely difficult to reach Zero Energy balance. Even ultra-efficient buildings will require easy access to locally sourced, off-site wind and solar energy in amounts that are not currently available. Alternatively, the state would need to allow building owners to enter into power purchase agreements without being geographically limited to local utilities, Maryland or the PJM service territory.

Integrating renewables at that scale will require significant advancements in the functionality of the utility grid and the removal of barriers to on-site generation. Deficiencies in the grid influence current rules on net metering, virtual net metering and meter aggregation which limit the size of systems, the amount and price of power returned to the grid and prevent generated power from being shared among a portfolio of related buildings.

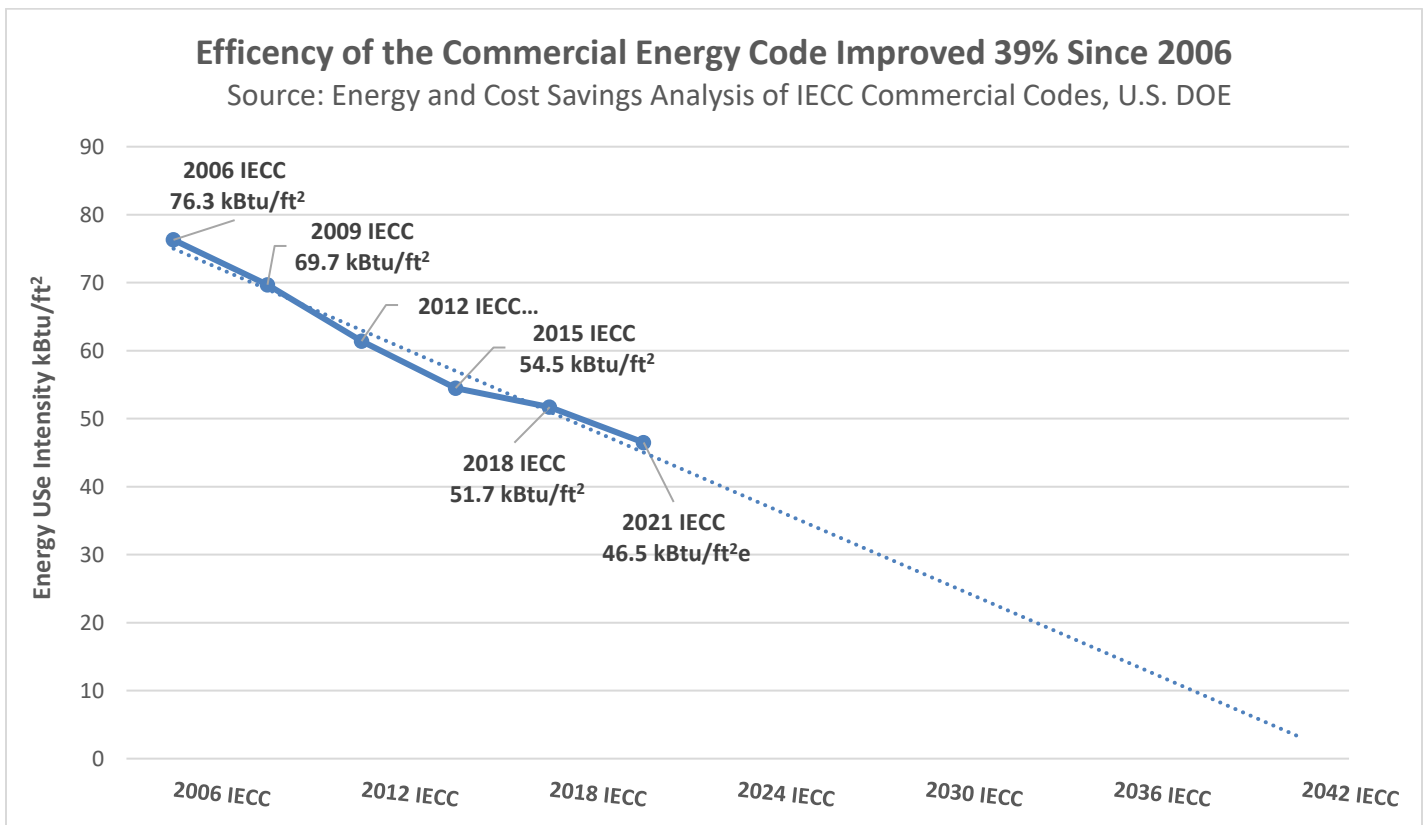
While the technologies exist to build net zero energy buildings under the right circumstances, the trade-offs make them impractical for widespread application across the entire market. To achieve necessary reductions in energy consumption, designers of net zero energy buildings often must put limits in the number of occupants, move computer servers or laboratory equipment off-site, reduce the building footprint or put limitations on the type of tenants and their activities.

Broadly applied, the trade-offs necessary to achieve Net Zero Energy Balance would result in under-utilization of building sites and under-build of job centers which could affect land use and transportation patterns in ways counter-productive to both climate mitigation and Chesapeake Bay cleanup.

Construction costs should also be a consideration. A study of net zero office and multifamily construction in Washington D.C. found that, even after a \$5m solar incentive payment, initial costs were 5%-19% higher than the same building built to meet LEED Platinum.

The phase-in periods of below code energy requirements leading up to the Zero Energy Balance requirement effectively decouple Maryland from the national building and energy codes. This will leave state and local codes officials and building designers to create the code compliant pathway to progressively lower energy use. Even states with long experience writing and administering their own building codes have found this difficult.

The efficiency of the International Energy Conservation Code improved 39% in the fifteen years between the 2006 and 2021 codes, and average of 2.6% improvement per year. Similar rate of improvement will put the code at or near zero energy by 2042. HB 583 requires that new buildings perform at 30% below the energy code over the next five years and reach 60% below code within ten years. This will require an average improvement of 6.6% per year. As buildings have become more efficient, deeper energy use reductions have become less cost effective and more difficult to achieve.



+ 40% Energy Reduction Requirement for Existing Buildings and Life Cycle Analysis

The 40% energy reduction requirements for existing buildings will be extremely difficult for recently built, higher performing buildings to meet both in absolute terms and in the relatively short time-frames that characterize renovation and change of use.

The bill's 15-year payback time and 40% energy use reduction place more stringent requirements on private buildings than state buildings. Legislation passed by the General Assembly during the 2020 session sets a goal of 10% reduction in energy consumption in state buildings by 2029. State agencies are instructed to identify low-cost measures for energy efficiency that are cash-flow positive within 5 years. Longer term energy efficiency measures are based on services contracts in which a contract provider guarantees up to 20% reduction in energy use over a 15-year period while maintaining or enhancing occupant comfort levels.

State buildings do a life cycle analysis, but state projects are not required to include future carbon emissions or distribution systems costs in the analysis. Those are factors that may provide information about outyear benefits but many of those benefits cannot be monetized by building owners and designers.

Uncertainties about commissioning and confirming a pre- and post-construction energy performance complicate a strict mandate like this. Even if reached in modeling the variations in systems performance and tenant energy use can result in large swings in final energy consumption.

This section raises questions about how easily a major renovation would be triggered as there are various definitions used by Maryland jurisdictions. An unreasonably high efficiency mandate will disincentivize renovation and repurposing of buildings and promotes deferral of major upgrades and maintenance.

+ Solar Ready and Rooftop Solar Requirement

The presumptive future use of rooftop solar power raises concerns on several levels.

One is the readiness of equipment, conduit and other materials installed perhaps many years before connecting panels and electric service.

The solar ready rooftop mandate ignores the question of whether equipment might best be located elsewhere on-site such as parking areas where they might be paired with electric vehicle charging equipment or part of a larger ground-based array.

The requirement would encumber roof space that is often used for heating, air conditioning and ventilation systems or communications equipment that cannot be located on the ground, rooftop tenant amenities or skylights that help meet targets for daylighting and reduce power consumption to meet lighting requirements.

Rooftop solar is more expensive for the building owner and consumer than utility scale installations. This situation is made worse because commercial property owners are limited by caps on aggregation of power, net metering, virtual net metering and battery storage. Future utility pricing decisions will also affect the feasibility of rooftop solar for commercial buildings.

The relationship between the roof area and floor area / energy use on a 20-story building is much larger than what our members consider to be a good candidate for rooftop solar. Solar on a building of this size would not provide meaningful amounts of power.

+ Reduced Role of Climate Commission and GGRA Quality Assurance Provisions

Passing HB 583 would make moot the Climate Commission's recommended workplan for developing a cost-effective emissions reduction strategy for the building sector. During 2020 climate commission held a series of subgroup and working group meetings on energy use and emissions in the building sector. The [Commission's work plan for 2021 includes a series of recommended actions](#) related to reducing emissions from the building sector, including:

1. Allowing utility incentive programs to pay for reducing emissions via fuel switching of space and water heating equipment.
2. Commissioning a study of the market potential and consumer economics of building electrification examining incremental first costs payback periods, appropriate incentive levels and the greenhouse gas reduction potential.
3. Producing an energy transition plan for the building sector by the end of 2021.

HB 583's net zero energy new construction and energy retrofit requirements were not presented as part of the commission's 2020 work, therefore the economic and emissions outcomes have not been modeled. By mandating means and methods, limiting technologies, the bill by-passes provisions in ENV 2-1206 that require an MDE feasibility analysis as well as the allowed use of alternative compliance mechanisms such as offsets and credits or technologies including carbon sequestration.

+ **Net Zero Emissions and the Need for Carbon Capture or Other Advanced Technologies**

Preventing access to technologies, narrowing the set of compliance options, and limiting location choices will unnecessarily increase compliance costs and slow progress. The majority of IPCC model compliance pathways, academic literature and numerous technical studies make clear the need to preserve the option to use a full range of future technologies related to carbon capture, nuclear, green hydrogen, bio energy, synthetic and natural gas technologies. [A recent study](#) by Energy and Environmental, Economics, [Maryland's climate consultant] of least-cost carbon reduction policies in the PJM utility service territory found, *"Reaching the end points of many "100%" goals being set today may require carbon capture and sequestration, new nuclear generation, new sources of renewable biogas or hydrogen fuels or other forms of clean generation that while technically achievable are not commercially available today. Achieving absolute zero carbon emissions requires one or more of these resources to become available."*

On behalf of our member companies, I want to reiterate NAIOP's commitment to working with the General Assembly and other stakeholders to meet the challenges presented by the Maryland's climate mitigation goals.

Sincerely,



Tom Ballentine, Vice President for Policy
NAIOP Maryland Chapters -*The Association for Commercial Real Estate*

cc: House Environment and Transportation Committee Members
Nick Manis – Manis, Canning Assoc.

Opposition HB 583.pdf

Uploaded by: Clark, Tom

Position: UNF



International Brotherhood of Electrical Workers

GEORGE C. HOGAN: Business Manager • THOMAS C. MYERS: President • RICHARD D. WILKINSON: Vice President
JOSEPH F. DABBS: Financial Secretary • RICHARD G. MURPHY: Recording Secretary • PAULO C. HENRIQUES: Treasurer



TESTIMONY IN OPPOSITION TO HB 583 CLIMATE SOLUTIONS NOW ACT of 2021 FEBRUARY 11, 2021

To: Hon. Kumar Barve, Chair, Hon. Dana Stein, Vice Chair, and members of the Environment and Transportation Committee

From: Tom Clark, Political Director, IBEW Local 26

Mr. Chair and members of the committee, I ask that you consider my opposition to HB 583. This bill, as written, poses several problems. Most obvious is the fact that the State Government seems to exclude itself and its projects from the “climate solutions” that this bill imposes on the private sector. Where is the leading by example that we expect from our State government and its leaders?

This bill excludes all schools (minus one per county) and highway projects. Basically, all State projects. Where is the leadership? This bill has set a standard for all to comply, except for the State. It also excludes warehouses, maintenance facilities, transmitter buildings, pumping stations. If you would like to make commercial office buildings your focus, please just write it in the bill.

A major concern of mine is the power plant issue. Looks like you are seeking a date to close these plants and the well-paying jobs that are involved. There is already a Fossil fuel bill that the Assembly is trying to pass. HB 583 is the same bill with autos and tree planting covering up the power plant issue. Forget seeing the forest thru the trees. In this bill, I can't see the power plants thru the trees. I see this bill as eliminating IBEW jobs, good paying jobs. The IBEW and its members are ready and trained for the green economy. However, until you can store solar energy, Maryland is not ready. I suggest you wait until science and invention catch up to your green goals. By closing down power plants in the area, we will just be consuming fossil fuel generated power from neighboring states (Pennsylvania and West Virginia) for 10 or more years, until technology catches up. Buying power from neighboring states is not a solution. Smog knows no borders!

I am worried about other issues that arise from this bill. Labor and the IBEW are included in the workgroup, however left absent from the commission. On page 13, the commission claims to: solicit input from all segments of the population that will be impacted. The women and men of the IBEW will be impacted, as well as their families. Also, on page 29, to use the term major renovation is extremely vague. Please define “major renovation”.

Although I am very much against this bill as written, I would like to acknowledge your effort to make the environment safer for all. I just think you are seeking a local solution to a national and global problem. I would also like to repeat that the State of Maryland needs to lead by example and not exempt itself from the very bill that you have filed. I respectfully ask that you **oppose** bill HB 583.

Tom Clark, IBEW member and proud Marylander





International Brotherhood of Electrical Workers

GEORGE C. HOGAN: Business Manager • THOMAS C. MYERS: President • RICHARD D. WILKINSON: Vice President
JOSEPH F. DABBS: Financial Secretary • RICHARD G. MURPHY: Recording Secretary • PAULO C. HENRIQUES: Treasurer



Chartered 1892
Washington, D.C.



HB 583 Climate Solutions OPP E&TC.pdf

Uploaded by: Demchuk, Pete

Position: UNF

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS - LOCAL UNION No. 24

AFFILIATED WITH:

Baltimore-D.C. Metro Building Trades Council — AFL-CIO

Baltimore Port Council

Baltimore Metro Council — AFL-CIO

Central MD Labor Council — AFL-CIO

Del-Mar-Va Labor Council — AFL-CIO

Maryland State - D.C. — AFL-CIO

National Safety Council



AFL-CIO-CLC

BALTIMORE, MARYLAND 21230

JOHN L. RANKIN, President

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Written Testimony of

Peter Demchuk, Business Manager, IBEW LOCAL 24

Before the

House Environment and Transportation Committee On

HB 583 – Climate Solutions Now Act of 2021

OPPOSE

February 9th, 2021

Dear Chairman Barve and Committee Members,

Thank you for the opportunity to submit my written testimony opposing HB 583.

For the record, my name is Peter Demchuk. I am a 41- year member, and the Business Manager, of the International Brotherhood of Electrical Workers, Local 24 located in Baltimore. I represent approximately 2,000 hardworking, Maryland tax paying electricians. I am a lifelong resident of Maryland and reside in District 7 of Baltimore County.

Although we find the promise of the bill alluring, we are opposed to it. It's a large bill with many components we feel cannot be adequately addressed in a bill of this complexity. An immediate issue of concern is loss of jobs for our fellow citizens. These losses are not effectively addressed in the proposed workgroup and just transition language. We are talking about Marylanders economic futures. Forming a workgroup and ensuring the working lives of those affected by this bill are two different things.

In light of the complexity of the issues the bill is addressing we urge you give this bill an unfavorable vote and not pass it out of committee.

Thank you,

Peter P. Demchuk

PPD:clr
AFL-CIO
OPEIU # 2

HB 583 - Climate Solutions Now Act of 2021.pdf

Uploaded by: Edwards, Donna

Position: UNF



MARYLAND STATE & D.C. AFL-CIO

AFFILIATED WITH NATIONAL AFL-CIO

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President
Donna S. Edwards

Secretary-Treasurer
Gerald W. Jackson

HB 583 – Climate Solutions Now Act of 2021 **House Environment and Transportation Committee** **February 11, 2021**

OPPOSE

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

Chairman and members of the Committees, thank you for the opportunity to submit testimony in opposition to HB 583 – Climate Solutions Now Act of 2021. 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.

HB 583 is an enormous bill, affecting nearly every sector of Maryland’s economy. From planting trees to cleaning up the Bay, from electric vehicles to energy generation, this bill leaves no corner of the State untouched in its effects. We realize that is by design, and that the call for “bold” action on Climate Change is reaching a fevered pitch.

We agree that the time to act on climate is now. It is no coincidence that the building trades unions in Maryland have had clean energy training – specifically in solar and wind – for their Apprenticeship programs since 1999. Maryland’s Building and Construction Trades Unions have led the way in quality training on the construction and installation of renewable energy generating facilities. They know the future of work in the construction of alternative energy is towards a cleaner future and are planning accordingly. However, unions also understand that to navigate this path requires equally bold thinking and action in creating and maintaining high-quality jobs with benefits. We cannot sacrifice the livelihoods of workers in pursuit of a clean energy future. A clean future needs to coincide with a bright future for workers. To do anything less is to engender anger and resentment at the loss of high road jobs and decline in standard of living, inviting a backlash against and less money to contribute to the very thing that we all agree should be our goal: A sustainable clean environment and reversal of Climate Change for the generations that follow behind us, and a vibrant economy that values the dignity of work.

HB 583 is very heavy on the former and exceptionally light on the latter. There are multiple instances within the bill of audacious environmental policies, some we believe should be expanded such as requiring all future new construction and renovations budgeted by the IAC should specify green components. The bill pays short shrift to all the workers that currently provide us with the vast majority of Maryland’s energy needs.

While it does create a new working group ostensibly titled the “The Just Transition Employment and Retraining Working Group”, its charge is limited, and there is no actual language committing to a discussion to a Just Transition. It leaves thousands of workers that are within a decade or less of retirement in the lurch, scrambling to figure out how to make their pensions – of which they have paid into for years – whole, as well as trying to cobble together stop-gap work to maintain their living standards and make it until retirement. There is no mention of loss of or provision for health care for workers losing their jobs or being retrained. Without the discussion of a Just Transition, the workgroup as described should be titled “The Retraining Working Group” because that is its only focus.

We need to have a sincere discussion about what a Just Transition would look like in Maryland. It will require the political resolve of the Maryland General Assembly to dedicate real money and real resources to keep workers whole in the face of a changing energy landscape. And in the absence of setting up a real Just Transition, we cannot simply charge ahead with liquidating good-paying jobs for Maryland without creating well paid jobs in the local region for displaced workers to transition to for “just transition” to work.

“Just Transition” is a broad concept that encompasses the idea that if society enacts laws that result in lost jobs and closed facilities, those workers and the host communities should be held harmless. Just Transition recognizes that support for environmental policies is conditioned on a fair distribution of the costs and benefits of those policies across the economy.

As described in a recent white paper, transitioning to a 21st Century Energy System¹, “a Just Transition is achieved when dislocated workers and host communities are left unharmed by the closure of a power plant. This means that workforce transition plans are developed and implemented and that workers receive wages and benefits while looking for a new job or training for a new career in an emerging sector. That new opportunity for work keeps the worker within the community that he or she resided in when their job at the power plant ended. That new job has the same labor standards, collective bargaining rights, and upward career mobility as the one that preceded it.”

HB 583 ultimately burns down the bridge before the tunnel is built. As of January 26, under the PJM, 107,556 MWs are being used, with only 6,772MWs coming from existing renewable energy sources. Only 6% of our energy is being produced by renewable energy. If we are serious about environmental policy in Maryland, then our legislation should reflect that by focusing on building the necessary base load energy before turning off other sources. It should be focused on incentivizing renewable energy production that also creates high-quality, family sustaining jobs.

We cannot make a choice between the environment and good jobs. We must do both.

We ask for an unfavorable report on HB 583.

¹ Transitioning to a 21st Century Energy System, Ross Gould, Esq., WDI; Ellen Redmond, IBEW; Lara Skinner, PhD, Cornell U ILR School, July 2019

MBIA Testimony HB 583.pdf

Uploaded by: Graf, Lori

Position: UNF

February 11, 2021

The Honorable Kumar P. Barve
Environment & Transportation Committee
House Office Building, Room 251,
6 Bladen St., Annapolis, MD, 21401

RE: HB 583 – Climate Solutions Now Act of 2021

Dear Chairman Barve:

The Maryland Building Industry Association, representing 1,100 member firms statewide, appreciates the opportunity to participate in the discussion surrounding **HB 583 – Climate Solutions Now Act of 2021**. **MBIA Opposes** the Act in its current version.

This Bill would make numerous adjustments to the state climate and energy infrastructure in order to meet the new target goal of net zero emission by 2045. MBIA appreciates that climate change is an existential threat to the future of humanity on planet earth. However, Maryland already has ambitious goals to reduce carbon emissions by 60% from 2006 levels by 2030 and we have not yet achieved that goal. Reaching net zero by 2045 is an unrealistic timeline considering the number of buildings, the type and cost of renovation, and the human costs of such a program.

The requirement that buildings meet net zero requirements would represent a substantial cost to the local and state governments that paid for the projects. During a period where revenue for both levels of government is diminished by the COVID-19 pandemic, this program would represent a huge financial commitment without the financial resources to achieve the stated goals.

The requirement that local jurisdictions must make life cycle estimates for new buildings will be partly or wholly passed on to the builders through new fees, which will in turn create an additional price increase for commercial real estate. This will ultimately have a detrimental effect on the economic health of local jurisdictions and create additional compounded costs by causing project delays and new required filing and paperwork for developers. What appears to be a small cost by itself will be very large in aggregate.

While we agree that climate change needs to be a priority, so does housing and housing affordability. The state of Maryland currently has a housing affordability crisis. Tax credits at the local, state, and federal levels are powerful tools to incentivize early adoption of many energy efficiency programs. Builders require a level playing field and need the support of industry and government. When given this support through voluntary programs, they will create housing that achieves Net Zero Energy Standards. Some of these standards will increase the cost of new housing by thousands of dollars. According to a 2020 National Association of Home Builders (NAHB) for each \$1000 increase in the price of a median priced new home, 2,881 Marylanders will be priced out of the market. We need to find a balance between housing affordability and climate change. We look forward to working on this issue in the future.

For these reasons, MBIA respectfully requests the Committee give this measure an unfavorable report. Thank you for your consideration.

For more information about this position, please contact Lori Graf at 410-800-7327 or lgraf@marylandbuilders.org.

cc: Members of the Environment & Transportation Committee

MMHA - 2021 - HB 583 - Climate Solutions.pdf

Uploaded by: Greenfield, Aaron

Position: UNF



House Bill 583

Committee: Environment and Transportation

Date: February 11, 2021

Position: Oppose

This testimony is offered on behalf of the Maryland Multi-Housing Association (MMHA). MMHA is a professional trade association established in 1996, whose members consist of owners and managers of more than 210,000 rental housing homes in over 958 apartment communities. Our members house over 538,000 residents of the State of Maryland. MMHA also represents over 250 associate member companies who supply goods and services to the multi-housing industry.

HB 583 defines a covered building as a commercial or residential building with a gross floor area of 25,000 square feet or more, and requires covered buildings to meet increasing energy usage reductions, resulting in a net zero energy balance by 2033. Further, the bill requires major renovations to achieve a 40% reduction in the building's average annual energy use or a level of energy efficiency that is at least 20% higher than what would be required for a new building under §12-511 of the subtitle.

MMHA is concerned by the bill's definition of a "major renovation," which notes that a major renovation is one that exceeds 50% of the assessed value of the current building. Apartment communities are regularly developed from older buildings that were previously constructed for non-residential purposes. These properties may be older and less kept, which reduces the current assessed value of the property prior to renovation. As such, these buildings would be considered major renovations, and HB 583 would require the renovated bills to have a level of energy efficiency that is at least 20% higher than what is required for a new building under §12-511 of the subtitle.

This new requirement for major renovations will create a barrier for the workgroup created in House Bill 877, which is designed to identify opportunities for renovation of vacant commercial properties into residential or mixed use properties. Though, HB 583 provides local jurisdictions with the choice to waive construction requirements for certain renovations, MMHA is concerned that the legislation will deter the renovation of older buildings into new and affordable residential complexes. For this reason, MMHA respectfully requests an unfavorable report from the committee.

Aaron Greenfield, MMHA Director of Government Affairs

HB 583_Climate_Solutions_Now_Act of 2021_UNFAV.pdf

Uploaded by: Griffin, Andrew

Position: UNF



LEGISLATIVE POSITION:

UNFAVORABLE

House Bill 583

Climate Solutions Now Act of 2021

Senate Education, Health, and Environmental Affairs Committee

Thursday, February 11, 2021

Dear Chairman Barve and Members of the Committee:

Founded in 1968, the Maryland Chamber of Commerce is the leading voice for business in Maryland. We are a statewide coalition of more than 5,000 members and federated partners, and we work to develop and promote strong public policy that ensures sustained economic recovery and growth for Maryland businesses, employees, and families.

At 52 pages, HB 583 is an extensive and dense piece of legislation proposing major changes to Maryland's policies relating to the emission of greenhouse gas. Despite the many different and worrisome proposals, the Maryland Chamber of Commerce has three primary concerns with HB 583 as introduced.

1. Maryland's existing climate plans are required to achieve the greenhouse gas reduction target while simultaneously increasing jobs and economic benefits. The current plan meets that standard and is therefore a win-win for Maryland. HB 583 changes the current standard in two ways. First, it assumes that there is a "social cost" of carbon estimated at \$50 per ton. This cost estimate means that any requirement adopted from this legislation which would result in lost jobs or lost benefits to the economy is a net positive so long as each ton of carbon reduced is less than \$50. As a result of this tradeoff, we can expect more measures to be adopted that have a negative impact on jobs and benefits. Additionally, instead of measuring jobs and benefits with or without the measures proposed, the new language compares the jobs and benefits to a "no-action scenario." It is not clear what the bill means by a no-action scenario. However, if the no-action simply means no-action by Maryland, the truth is that Maryland's contribution to global greenhouse gases is not material. If the intent is to compare jobs and economic impacts to a global climate catastrophe than any measure, no matter how draconian, will be a positive.

HB 583 essentially eliminates the requirement that the plan result in a net economic benefit to the State's economy and a net increase in jobs.

2. The bill has extensive, and extremely expensive, requirements for new and renovated commercial buildings. The proposed standards in HB 583 are much stricter than called for by international building codes and stricter than any of our nearby competing states. Placing extremely expensive requirements on commercial buildings during a time when that sector is under enormous pressure from the fallout of the COVID-19 pandemic while future recovery remains very uncertain would be a questionable policy choice.
3. Finally, HB 583 mandates much more expensive school construction and the procurement in more expensive state vehicles and buses. The costs of HB 583 are likely to be immense. Unfunded mandates like many of those in HB 583 seem to make for poor budgetary policy in a time of future fiscal uncertainty.

For these reasons, the Chamber respectfully requests an **unfavorable report** on HB 583.



HB 583 Climate Solutions Now 2021 Act Testimony.pdf

Uploaded by: Guido, Jeffry

Position: UNF



Maryland House of Delegates – Environment and Transportation Committee

Chair: Kumar P. Barve
Vice Chair: Dana Stein

House Bill 583 – Climate Solutions Now 2021 Act

Position: Oppose

- Electrical Workers
- Insulators
- Boilermakers
- United Association
- Roofers
- Cement Masons
- Teamsters
- Laborers
- Bricklayers
- Ironworkers
- Sheet Metal Workers
- Elevator Constructors
- Painters
- Operating Engineers
- Carpenters

The Baltimore DC Metro Building Trades Council opposes HB 583. To be clear we are not climate change deniers, but feel the need to oppose this far reaching bill as it creates a pandora’s box of unintended consequences for Maryland’s energy needs and the jobs that it wants to provide. The provisions of the bill are very vague and leave it to committees to substantiate and create solutions to what is needed to get to net zero. First we do not agree to one public school per district when all public schools and other BPW projects can be built to energy efficiency. The following use of green roofs, solar, wind, geothermal, rain water catchment and the thermal skin of buildings should be required in any building specifications going forward. We are glad to be considered when creating these committees but would prefer to be included in the conversation before a bill of this magnitude be drafted. Let’s look at some facts on MD energy as stated on the energy information agency website.

[Maryland - State Energy Profile Analysis - U.S. Energy ... - EIA](http://www.eia.gov/state/analysis/sid=MD)
[www.eia.gov > state > analysis > sid=MD](http://www.eia.gov/state/analysis/sid=MD)

Maryland's economy is among the 10 least energy-intensive of the 50 states. ... More than 4 out of 10 Maryland households use natural gas as their primary fuel ...

Maryland's per capita petroleum consumption is the second lowest among the states.²⁴ Almost 9 out of every 10 barrels of petroleum used in Maryland are consumed by the transportation sector.

Maryland ranks among the 10 states with the lowest per capita natural gas use Maryland holds about 0.1% of the nation's estimated recoverable coal reserves and accounts for about 0.2% of U.S. coal production

Maryland consumes almost 50% more electricity than it generates. Renewable energy, including small-scale generating installations (less than 1 megawatt) and larger utility-scale generating facilities, provided about 11% of Maryland's in-state net generation in 2019. Hydropower accounted for almost half of the state's renewable electricity generation.⁷⁷ The Conowingo hydroelectric generating station, located in northern Maryland on the Susquehanna River, was the largest power plant ever built when it began operating in 1928. The 11 turbines at the station have a combined generating capacity of 572 megawatts.⁷⁸ Conowingo provides almost all of Maryland's hydroelectricity and it is one of the five largest power plants in Maryland based on actual annual generation.⁷⁸

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Carpenters

Solar energy provided almost one-third of the state's renewable electricity generation and has increased significantly in recent years, doubling from 2016 to 2019. Two-thirds of the state's solar generation came from small-scale solar photovoltaics (PV), such as rooftop solar panels, and the rest of the generation was at larger utility-scale solar farms.⁸⁰ By mid-2020, Maryland had 1,122 megawatts of total solar generating capacity installed.⁸¹ The state's largest solar project—located on the Eastern Shore—came online in 2018 with a generating capacity of 75 megawatts.⁸² Several large solar panel arrays also have been installed at commercial buildings in the state.⁸³

Wind energy provided about 12% of Maryland's renewable electricity generation in 2019.⁸⁴ The state's best onshore wind potential is in its western mountains and along its southern Chesapeake Bay and Atlantic Ocean shorelines.⁸⁵ The state's only operating utility-scale wind farms are along Maryland's western Appalachian Mountain crests, where almost 200 megawatts of generating capacity is installed.^{86,87} Maryland's greatest wind energy potential is offshore.⁸⁸ Two major wind projects are planned off Maryland's Atlantic coastline. One wind project, located about 17 miles offshore, will consist of 32 turbines that can generate up to 270 megawatts of electricity and is scheduled to come online in early 2023.⁸⁹ A second wind project, expected to come online in late 2023, will be located about 20 miles offshore and have 12 turbines with a generating capacity of 144 megawatts.^{90,91,92}

Many of the job creation aspects can be adopted from the Clean Energy Jobs Act of 2019 Chapter 757.

We ask for an unfavorable report by the committee.
(E) jguido@bdcbt.org (O) 301-909-1071 (C) 240-687-5195

Sincerely,
Jeffry Guido

5829 Allentown Rd Camp Spring MD 20746

HB 583 - UA 486 - UNFAVORABLE.pdf

Uploaded by: Jackson, Gerald

Position: UNF



Founded 1889

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Nicholas W. Cummings
Business Agent

Todd E. Eckley
Revisiter

HB 583 – Climate Solutions Now Act of 2021

Date: February 11, 2021

To: Chairman Barve, Committee Members of Environment and Transportation

Chairman and Committee members, thank you for the opportunity to provide testimony in opposition of HB 583. My name is Gerald Jackson, and I am the Assistant Business Manager for the Plumbers & Steamfitter's UA Local Union 486 in Baltimore, Maryland and I'm also the Secretary- Treasurer for the Maryland State and D.C. AFL-CIO and on behalf of the more than 340,000 union members in the state of Maryland, I offer this testimony.

This legislation appears to have a goal of net-zero carbon emissions by year 2045 and protect the workers who will need to transition from building and maintaining this infrastructure with a "Just Transition". I think we have missed the mark in both areas.

If we're being asked to transition from fossil fuel, then the government needs to lead by example: Why does this legislation exempt most public schools and older government buildings from being retro-fitted? Why isn't Carbon Capture and Nuclear being considered as a form of renewable energy along with Wind and Solar Power? Research shows that 30%-40% of Maryland's energy is imported from other states. The states that provide our grid with electric power use fossil fuel sources (Coal Nat. Gas and Nuclear) to supply Maryland with our much needed energy demands. Conversely those states – Pennsylvania, West Virginia, Ohio, Illinois and Indiana still employ workers in the fossil fuel industry who make good wages and benefits.

Just Transition is a means to replace one industry with another without losing Life Sustaining Wages and Benefits. I'm afraid that this bill leaves a lot to be desired.

For these reasons I'm asking for an unfavorable report **for HB 583.**

Respectfully Submitted,

Gerald Jackson – Secretary- Treasurer Md. State & D.C. AFL-CIO
Assistant Business Manager Plumbers & Steamfitter's UA Local 486

Testimony HB-583 Climate Solutions Now Act of 2021

Uploaded by: Kasecamp, Larry

Position: UNF

LARRY KASECAMP
Legislative Director

THOMAS CAHILL
Assistant Director

JOHNNY WALKER
Secretary



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ANNAPOLIS OFFICE
176 Conduit St., Suite 206
Annapolis, MD 21401-2597

February 11, 2021

The Honorable Kumar Barve, Chairman
Members of the Environment & Transportation Committee

RE: Oppose HB-583

REPRESENTATIVES

CUMBERLAND
Local 430
VACANT

Local 600
JASON WEAVER

BRUNSWICK
Local 631
TOM CAHILL

EDMONSTON
Local 1470
KENZELL CRAWFORD

BALTIMORE
Local 610
JOHNNY WALKER

Local 1949
ERIC BILSON

As the Maryland Legislative Director for the Transportation Division of the International Association of Sheet Metal, Air, Rail and Transportation Worker's (SMART) and on behalf of our members we would like to express our opposition to HB-583 as currently written.

We are the largest rail labor union in North America. Our members in Maryland are employees of CSX, Norfolk Southern Railway, Amtrak, Bombardier (MARC Service) and the Canton Railroad and work as conductors, engineers, switchmen, trainmen, utility persons and yardmasters. Our members operate freight and passenger trains that travel throughout the State of Maryland and throughout the Northeast Rail Corridor. SMART represents over 216,000 members throughout the country.

HB-583 would require the State to reduce statewide greenhouse gas emissions by 60% from 2006 levels by 2030, require the State to achieve net-zero statewide greenhouse gas emissions by 2045 and require the Maryland Department of Labor to adopt regulations establishing certain energy conservation requirements. These are all laudable goals that we support, but how we get there and who suffers the consequences along the way is the problem.

As a representative of workers, I can tell you the most important thing next to their safety in the workplace is job security. When legislation will have an affect on who gets to remain employed once it's implemented it requires great scrutiny. What's missing in this legislation is a real answer as to what a just transition is to an affected worker. You can establish all the committees and study groups you want to evaluate the affects, but to support legislation on a promise of a just transition without defining it would be imprudent. If it is the legislature's intent to proffer bold legislation that will drastically impact working families, the legislature should be bold enough to accept responsibility and define a just transition within the legislation.

Also, carbon capture processes are a promising technology. To eliminate its affect as part of a greenhouse gas emission reduction measure would be imprudent too. Technologies that are focused on improving the quality of air, water and the like should be encourage not excluded.

Thank you for your time and consideration of our position on this matter.

Sincerely,

Lawrence E. Kasecamp
MD State Legislative Director
SMART Transportation Division

HB 583.pdf

Uploaded by: May, Lisa

Position: UNF



House Bill 583 – Climate Solutions Now Act of 2021

Position: Oppose

HB 583 would require newly constructed commercial buildings to meet increasing energy usage reductions, resulting in a net zero energy balance by 2033. It would also require substantial commercial renovation projects to achieve significant reductions in energy usage. Maryland REALTORS® are concerned about the ability of commercial real estate projects to meet these demands in the current market.

In contrast to other real estate sectors, commercial real estate has been hit hard by the COVID-19 pandemic. Commercial lending volume decreased approximately 60% in 2020, and lender losses in the commercial sector exceeded those of the 2008 financial crisis. National economists also predict short-term price declines for retail, office, and hotel properties of 4-7%. As a result, lenders are expected to be more selective and conservative in financing commercial projects going forward.

The requirements of HB 583 will make the approval of commercial projects even more difficult. The upfront costs to construct a net-zero commercial building can be up to 15% more than conventional construction. A combination of increased construction costs and decreased lending availability will reduce the financial viability of certain projects. That includes those like adaptive reuse of existing structures which are a growing component of successful smart growth and urban renewal efforts.

The mandates for commercial real estate in HB 583 can harm the recovery of the commercial real estate sector. For this reason, REALTORS® must request an unfavorable report.

For more information contact bill.castelli@mdrealtor.org, susan.mitchell@mdrealtor.org, or lisa.may@mdrealtor.org

AACPS HB583 Climate Solutions Now OPP 2.11.21.pdf

Uploaded by: Ortiz, Jeanette

Position: UNF



HB583 CLIMATE SOLUTIONS NOW ACT OF 2021

February 11, 2021

ENVIRONMENT AND TRANSPORTATION COMMITTEE

OPPOSE

Jeanette Ortiz, Esq., Legislative & Policy Counsel (410.703.5352)

Anne Arundel County Public Schools (AACPS) opposes **HB583 Climate Solutions Now Act of 2021**. This bill makes broad changes to the State's approach to reducing statewide greenhouse gas (GHG) emissions and addressing climate change. Among other things, the bill 1) increases the statewide GHG emissions reduction requirement, from 40% from 2006 levels by 2030 to 60% from 2006 levels by 2030, and requires the State to achieve net-zero statewide GHG emissions by 2045; 2) establishes new commissions and working groups; 3) requires the Maryland Department of Labor to adopt new energy conservation requirements for buildings and expands and alters the applicability of "high-performance building" standards; 4) establishes State tree-planting goals; 5) increases and extends energy efficiency and conservation program requirements administered by the Public Service Commission; and 6) establishes requirements for the purchase of zero-emission vehicles in the State fleet.

AACPS opposes unfunded mandates. This legislation would require AACPS and other local school systems to expend significantly more on public school construction programs in the years 2022 through 2045. Given the well documented backlog of new school construction, renovation, replacement, expansion, and maintenance projects, local school systems and local units of county governments should not be forced to pay more for each project than would otherwise be required under the applicable State and local codes. This legislation could easily add 10% or more to the initial construction costs of a public school. For AACPS, that could add an additional \$10-\$20 million to our CIP request along with the same commensurate burden on the Anne Arundel County Government.

To the extent that this legislation requires greater up-front CIP expenditures per school, our ability to get to and properly address the ever-growing backlog of school construction projects will be delayed even further, thus hindering student access to educational suitability and equity.

Accordingly, AACPS respectfully requests an **UNFAVORABLE** committee report on HB583.

hb 583_BOMA_UNF.pdf

Uploaded by: Popham, Bryson

Position: UNF

Bryson F. Popham, P.A.

Bryson F. Popham, Esq.

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February 9, 2021

The Honorable Paul Kumar Barve
Chairman, House Environment and Transportation Committee
Room 251 House Office Building
Annapolis, Maryland 21401

RE: House Bill 583 - Climate Solutions Now Act of 2021 - UNFAVORABLE

Dear Chairman Barve and Members of the Committee:

I am writing on behalf of the Building Owners and Managers Association (BOMA), in opposition to House Bill 583.

BOMA is a trade association that represents the interests of commercial and real estate owners, real estate professionals and our associate members through effective leadership in advocacy, collection and dissemination of industry information, education, community involvement, membership participation, and professional development.

Furthermore, BOMA acknowledges the leading role that Maryland has taken among states in addressing the broad issue of climate change, with a series of legislative enactments intended to promote sustainability and to improve the environment in which all Marylanders must live. These actions include the creation of the Maryland Commission on Climate Change (Commission), which has become a guiding force for State policy on this subject. BOMA has itself been an industry leader in this effort, both in the state and through its national organization, the Building Owners and Managers Association International (BOMI).

The Commission issued its most recent annual report on November 15, 2020. The report noted “the escalating urgency of climate change,” and it is fair to say that one central recommendation from the report is embodied in SB 583: that the State achieve net-zero greenhouse gas emissions by 2045. Another central recommendation of the report, that the state achieve a statewide emissions reduction goal of 50% (from 2006 levels) by 2030 has been changed in the bill to a 60% reduction. By the report’s own characterization, these and other ambitious recommendations are being treated by the Maryland Department of the Environment (MDE) as “stretch targets.” The report also notes that MDE must submit, in 2022, a “progress report on the state GHG reduction efforts *and the economic impact of the GGRA of 2016 Plan*”. Finally, the report cites the General Assembly’s power to “maintain, revise, or eliminate” the 2030 goal and consider whether to continue economic impact provisions. In other words, the General Assembly will certainly be active in addressing this important subject continuously over the next several years.

No reasonable person disputes the serious problem of climate change, and that our government has an obligation to analyze it and act accordingly. The Commission was established for that purpose, and it is fulfilling its role. The General Assembly must also take into account, however, the impact that enacting Commission recommendations into law will have on our citizens. It is a constant balancing act for which the stakes are high on both sides.

With respect to the commercial buildings that form the core of BOMA members' assets, they comprise the workplaces of most of our State economy throughout Central Maryland. Our experience with economic upheaval caused by the pandemic over the last year illustrates how government action can significantly disrupt the lives of our citizens in important ways. Our State and local governments continue to struggle to achieve a balance between rational public health practices and the orderly conduct of business and personal life in Maryland.

The same balancing act will be needed in dealing with climate change. One laudable idea for this problem is another Commission recommendation, found on page 31 of the report, to revive an interagency task force whose objective is to coordinate across programs, policies and funding streams, an effort to retrofit Maryland's existing residential and commercial buildings to achieve healthier, safer, more efficient, and climate-friendly homes and businesses (Commission report, pp31-32). At a time when many buildings owned and operated by BOMA members have been vacant for a year, or nearly so, when the ability of tenants to pay rent is in question, and, most important, when the future use of these buildings is being considered by the owners, imposing the ambitious goals at the heart of SB 583 is premature. As a society, we must spend the balance of 2021 working through this incredibly difficult time, and BOMA members must decide how their buildings will be used in the future. Those uses will have a direct and material impact, in turn, on energy usage, emissions, and the production of greenhouse gases.

For these reasons, BOMA respectfully requests an unfavorable report on House Bill 583.

Very truly yours,

A handwritten signature in black ink that reads "Bryson Popham". The signature is written in a cursive style with a long, sweeping underline.

Bryson F. Popham

cc: Kevin Bauer
Joan Smith

HB583_LOI_MDE.pdf

Uploaded by: abbott, tyler

Position: INFO



February 11, 2021

The Honorable Kumar P. Barve, Chair
Environment and Transportation Committee
House Office Building, Room 251
Annapolis, MD 21401

Re: House Bill 583 - Climate Solutions Now Act of 2021

Dear Chairman Barve and Members of the Committee:

The Maryland Department of the Environment (MDE or the Department) has reviewed House Bill 583 - *Climate Solutions Now Act of 2021* and would like to offer additional information about the legislation.

The Department strongly supports the bill's overall objective to reduce greenhouse gas (GHG) emissions. Climate change is an urgent threat, and all levels of government and nongovernment organizations must take increasingly aggressive and balanced actions to reduce GHG emissions and increase community resiliency. Maryland is a national leader in this area, realizing substantial reductions in emissions since the first Greenhouse Gas Reduction Act (GGRA) was passed in 2009, with the Hogan Administration taking bold new actions to achieve significant progress. The World Resources Institute recently recognized Maryland's leadership with their finding that Maryland was the number one state for reducing GHG emissions while growing our economy.¹ While the Department welcomes efforts to accelerate action to combat climate change, we would like to provide information and express some concerns with the bill as currently drafted.

Overall

The Department has some concerns with the language changes to existing law. The language in the 2009 GGRA and 2016 GGRA was the result of a very comprehensive process that resulted in strong environmental protection and economic growth. Those bills were agreed upon by a wide array of interested parties, including environmental advocacy groups, labor and industry representatives, state agencies and public citizens. Some of the language changes to the existing GGRA that are proposed by this bill threaten to unravel the consensus underlying current law. Other language changes to the current law are vague and ambiguous or seem to provide for what is already implemented under current law, such as the requirement to "ensure that the greenhouse gas emissions reduction measures implemented in accordance with the plans: produce a net economic benefit to the State's economy and a net increase in jobs in the State, as compared with a no-action scenario."

The bill declares new goals to achieve a 60% reduction in statewide GHG emissions by 2030 and net zero GHG emissions by 2045. While the Department generally finds more ambitious goals to be laudable, the Committee should be aware that developing a plan for Maryland to achieve those goals through state programs while still meeting the law's requirements for economic impacts will be difficult and may even be impossible. Such rapid reductions will require improvements in federal programs to advance new technologies and make major infrastructure investments, and those improvements may be beyond what the incoming federal administration will put forward. The Department believes that such federal action is necessary and long overdue, but when developing a state plan, the Department cannot assume that federal action at that scale will occur.

¹ <https://www.wri.org/blog/2020/07/decoupling-emissions-gdp-us>

Recently, the bipartisan, independent Maryland Commission on Climate Change (MCCC), which includes the Senate and House sponsors of this legislation in its membership, unanimously approved a recommendation for Maryland to adopt similar ambitious GHG reduction goals. The Commission, informed by the latest scientific findings on necessary action by developed nations to limit global temperature increases and by the research and analysis of reduction opportunities by the Commission's Greenhouse Gas Mitigation Working Group, recommended a different reduction goal for 2030 – a 50% reduction rather than a 60% reduction – and the same net-zero goal for 2045.² These paths are not mutually exclusive, as the goal in the GGRA sets a floor on reductions, not a ceiling. The Department has always aimed to develop plans to exceed the required reductions by as much as possible, given available technology, constraints on state authority, and the requirements in the law relating to economic benefit and other impacts.

On January 19, 2021 the Department provided a preview of the forthcoming *2030 GGRA Plan* wherein the Department and the other Maryland state agencies advanced a portfolio of measures that will reduce Maryland's 2030 GHG emissions to 48.7% below 2006 levels, very nearly achieving the Commission's recommended 2030 goal.³ The Department intends to supplement that plan shortly with updated estimates incorporating additional federal policies that will almost certainly bring Maryland's emissions below the 50% goal, once the incoming federal administration provides more detail on its immediate climate policy actions.

Timeline and Methodology

The bill would require the Department to issue a proposed plan to achieve the new 2030 GHG reduction goals by June 30th of next year, followed by a final plan by December 31st of next year. The Department would like to provide feedback on that timeline. The bill's requirement for a final plan following a draft by only six months does not allow for public comment and review of the numerous new mitigation programs that such a plan would need to propose, followed by material changes to program design and analysis. The Department and other state agencies would struggle to meet that deadline, as development of new mitigation programs requires significant time for research, careful analysis, and consultation among agencies and with outside experts, including other states and the MCCC. Also, the bill's requirement that MDE perform measure-by-measure emissions impact analysis would add significant time and expense to the analysis process.

The bill also places some narrower methodological requirements on the GHG plan that give MDE some concern.

First, the bill prohibits the plan from including “the use of carbon capture and storage technology” as a GHG reduction measure. The Department's practice is to exclude that technology from its analysis of 2030 emissions to avoid producing a plan that depends upon that new technology to achieve the 2030 GGRA goal.⁴ However, the Department notes that achieving deeper long-term goals like net zero by 2045 may require such technology to mitigate the GHG emissions from essential industrial processes that either have process heat demands that can only be met through combustion, or entail processes that emit CO₂ as a by-product.

Second, the bill requires the plan to use the 20-year global warming potential for methane to estimate GHG emissions. While the Department recognizes the need to focus on short-lived climate pollutants like methane, and uses the 20-year value in methane-specific policy analysis, it notes that using the 20-year value in the economywide plan would violate established standards for GHG accounting. Both national standards, including the Greenhouse Gas Protocol,⁵

² <https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Documents/MCCCAnnualReport2020.pdf>

³ <https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/MWG/GGRA%20Planning%20Update.pdf>

⁴ See, for example, the 2019 Draft GGRA Plan: [https://mde.maryland.gov/programs/Air/ClimateChange/Pages/Greenhouse-Gas-Emissions-Reduction-Act-\(GGRA\)--Draft-Plan.aspx](https://mde.maryland.gov/programs/Air/ClimateChange/Pages/Greenhouse-Gas-Emissions-Reduction-Act-(GGRA)--Draft-Plan.aspx)

⁵ “...users are required to estimate GHG effects using 100-year GWP values in Chapters 8, 9, and 11. ['Estimating Baseline Emissions', 'Estimating GHG Effects Ex Ante', and 'Monitoring Performance Over Time', respectively]” <https://ghgprotocol.org/sites/default/files/standards/Policy%20and%20Action%20Standard.pdf>

and international standards, including the rules for implementing the Paris Climate Agreement,⁶ require the use of 100-year global warming potentials in GHG reduction plans.

Third, the bill requires the plan to include “specific estimates of the reductions expected from each greenhouse gas reduction measure included in the plan.” Older versions of the GGRA plan did include such “measure-by-measure” analysis, but methodologies and models have advanced since then, and best practice is now to analyze the effects of multiple measures simultaneously within an economy-wide modeling framework. That is because many programs interact with one another in fundamental ways, so they do not have independently attributable impacts (for example, the future reductions achieved by the EmPOWER program’s efficiency investments depend profoundly on how the electricity generation system changes due to the Renewable Portfolio Standard’s renewable energy deployments and the Regional Greenhouse Gas Initiative’s declining pollution cap). By analyzing such measures together, analysts can capture those interactive effects and correctly estimate what all measures achieve together, which is the most important question for economywide planning. After this request in the 2020 version of this bill, MDE increased its analysis budget for 2021 in order to roughly estimate measure-by-measure reductions by adding subsequent analyses wherein programs are removed from the modeling process one-by-one to see how the overall results change. That supplemental analysis of a subset of the most significant programs will be available in the Spring, but the Department notes that, while that analysis is of interest, such measure-by-measure analysis is conceptually flawed because of the interactions among measures, and a full analysis of every one of the dozens of measures in the GGRA Plan would be a substantial and expensive undertaking.

Fourth, the bill requires the Department to incorporate aircraft-borne estimates of methane emissions from landfills into the GGRA Plan and to require landfill operators to take various actions in response to those estimates. The Department recognizes the value of aircraft-borne estimates and continues to fund the University of Maryland’s work to gather those estimates. The Department and the University’s researchers continue to collaborate on how those estimates can improve Maryland’s GHG management. However, those estimates cannot replace the facility-level estimates the Department currently uses for regulatory purposes and for the GGRA Plan. The Department requires estimates that are (1) specific to a facility and (2) annual for those purposes. Aircraft-borne measurements do not provide estimates specific to a particular landfill or other source, since they measure methane emitted from numerous upwind sources and areas, and do not provide annual estimates since they only provide snapshots in time that are heavily dependent upon immediate conditions including weather. Therefore, these provisions in the bill cannot be implemented.

Fiscal and Operational Impact

In addition to the Department’s concerns noted above, HB 583 would have a fiscal and operational impact on the Department in several ways. The first impact is tied to the increase in the GHG emissions reductions to 60% from 2006 levels by 2030. Under the bill MDE would be required to adopt the first of two new plans by December 31, 2022, adopt regulations, and implement programs that reduce statewide GHG emissions to meet these more stringent emission reduction levels. The revised 2030 GHG reduction goal would require that MDE repeat the comprehensive emissions and economic impact analysis included in the current GGRA plan process using extended contracts with emissions and economic impact modelers. For the 2019 GGRA Plan and forthcoming, 2030 GGRA Plan, emissions modeling was done on an economy-wide scale, consistent with best methodological practices and best available models. HB 583 requires that emissions reductions be calculated for each individual measure included in the plan, despite the fact that relevant measures profoundly interact with one another, so do not have independently attributable impacts. MDE can, however, estimate theoretical independent impacts by supplementing its economy-wide analysis

⁶ "Pursuant the modalities, procedures and guidelines (MPGs) for the transparency framework for action and support adopted by decision 18/CMP.1, Parties agreed to use the 100-year time-horizon GWP values from the Fifth Assessment Report of the IPCC (see [table 8.A.1](#)), or 100-year time-horizon GWP values from a subsequent IPCC assessment report as agreed upon by the CMA, to report aggregate emissions and removals of GHGs, expressed in CO₂ eq ([decision 18/CMA.1, annex, paragraph 37](#))."
<https://unfccc.int/process-and-meetings/transparency-and-reporting/methods-for-climate-change-transparency/common-metrics>

approach with additional modeling scenarios that each evaluate the presence or absence of individual measures. MDE is performing supplemental analysis to explore that for a limited number of the most significant programs. Satisfying the requirements in this bill would have substantial additional impact because of the dozens of emissions reduction measures that Maryland has implemented and that the Department includes in the GGRA Plan.

HB 583 would establish a new Just Transition Employment and Retraining Working Group under the MCCC to perform a study and provide recommendations and a report to the Commission and General Assembly. The working group would be staffed by MDE. The bill also requires the Commission on Environmental Justice and Sustainable Communities (CEJSC) to perform numerous tasks including establishing a methodology to identify disproportionately affected communities, developing recommendations relating to state spending, holding public hearings and providing additional reports to the General Assembly. The Department appreciates the efforts of the legislature to promote justice, equity, diversity and inclusion. However, both commissions are volunteer bodies with other responsibilities, so the majority of the work required under this bill would be performed by MDE staff. MDE would need to hire additional positions to staff the new working group of the MCCC and perform the additional tasks required of the CEJSC.

The bill would also require MDE to perform an annual analysis of spending by all state agencies on GHG reduction programs, including an evaluation of the portion of spending that benefits disadvantaged communities, according to criteria established by the CEJSC. Implementing agencies could also face additional recordkeeping and reporting costs to provide the necessary information to MDE.

The bill also has a goal of “planting and helping to maintain in the State 5 million sustainable trees of species native to the State by the end of calendar year 2030.” The Department would be the lead agency required to help the State reach this goal. To this end, the bill would require the creation of a 5 million tree program coordinator within the Department who would be primarily responsible for leading DNR, MDA, and the Chesapeake Bay Trust to promote, facilitate, and align the State’s efforts to achieve the goals established under the amendments in this bill. In each fiscal year from 2022 through 2030, inclusive, \$1.25 million the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund shall be used to fund: the 5 million tree program coordinator position at MDE and 13 contractor positions in the forest service of the DNR to provide technical assistance, planning, and coordination related to tree plantings on public, private, and agricultural lands and in “underserved areas”.

This legislation transfers \$15 million per year in fiscal years 2022 through 2030 from the Bay Restoration Fund to other entities for tree planting activities. Specifically \$10 million will be transferred to the Chesapeake Bay Trust for a new Urban Trees Program established in this bill; \$2.5 million of the \$15 million annually will be transferred to the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund in DNR to be used for tree planting on public and private land; lastly, \$2.5 million of the \$15 million annually will be transferred to MDA to fund tree plantings under the Conservation Reserve Enhancement Program (CREP) and other tree-planting programs on agricultural land. Funds transferred from the Bay Restoration Fund under the bill would be after making payments on existing Bay Restoration Fund bonds, operation & maintenance funding for Enhanced Nutrient Removal wastewater treatment plants (WWTP), and major and minor WWTP upgrades. These funds are being diverted from the Bay Restoration Fund Wastewater account which would affect projects needed for bay clean up including stormwater control measures, sewer overflow abatement, and septic connections to BNR or ENR WWTPs. Bay Restoration Funding is allocated on a competitive basis and projects are ranked based on water quality, climate resiliency, flood control and public health benefits. The Department recently updated its project scoring system to incorporate nutrient reductions from riparian forest buffers that are planted with native species. The highest ranked funding applications are awarded BRF grant funding annually. Additionally, there are a large number of eligible applications that do not receive grant funding annually. If this legislation is enacted, there will be less funding available in the Bay Restoration Fund to go to local governments for stormwater control measures, septic connections, and sewer overflow abatement. This will likely make it more difficult for local governments to meet their MS4 permits and consent decrees for sewer overflows, as well as making it more difficult for the State to meet its obligations under the Chesapeake Bay TMDL, which has a court ordered 2025 deadline.

Capital projects have been included in the FY22 capital budget to utilize all FY22 BRF revenues, including \$15 million in revenues that would be transferred out of the BRF. These projects will have to be cancelled or possibly delayed for two years, when the local government would have to apply again. Since the solicitation for FY 2023 is open now until January 31, 2021, these cancelled projects will not be able to request funding until FY 2024. These projects, that were already selected for funding in FY 2022, will have to compete with new applications received and may not rank as high. The projects affected by the transfer in FY 2022 would be Fruitland Tuxents Branch Drainage in Wicomico County, Sanitary Sewer Reconstruction in Prince George's County, and a combined sewer overflow project in Allegany County.

Lastly, this bill would create a new commission entitled the Commission for the Innovation and Advancement of Carbon Markets and Sustainable Tree Plantings. This Commission would be in effect from June 1, 2021 to June 30, 2023. The Secretary of the Environment, or his designee would chair the Commission and the Department would provide staff for the Commission. Among other items, the Commission would be responsible for developing: a plan to achieve the tree planting goals mentioned above; a plan to ensure that trees planted are properly maintained; recommendations regarding the establishment of a Maryland-based carbon offset market to support the State's tree-planting goals; and recommendations on reviewing State policies to mitigate the clearing of trees during the construction of State transportation projects. The Department would require additional staff and contractual assistance to perform these tasks.

All of these provisions would create many new responsibilities for MDE and have a very large fiscal and operational impact. MDE would need to hire additional staff and procure contractor(s) to meet the requirements in this bill. Given the short timeline provided in this bill, MDE anticipates that hiring staff, even on a contractual basis, and procuring contracts would be difficult.

Furthermore, the bill would change how funding from the Regional Greenhouse Gas Initiative (RGGI) is allocated from the Strategic Energy Investment Fund (SEIF) by, among other items, identifying the Department's climate planning work as an eligible spending category for annual revenues in excess of \$50 million per year. The Department's Climate Change Program is currently funded by RGGI SEIF funds, under the 20% credited to the renewable and clean energy programs account. Funds taken from this account to support the newly created climate solutions account, where any additional support for MDE's climate change planning efforts is a low priority, could cause significant financial issues for MDE.

Thank you for your consideration. We will monitor HB 583 during the Committee's deliberations, and I am available to answer any questions you may have. Please feel free to contact me by e-mail at tyler.abbott@maryland.gov.

Sincerely,



Tyler Abbott

SB 414 Climate Action Now - NAIOP - Voting Session

Uploaded by: Ballentine, Tom

Position: INFO

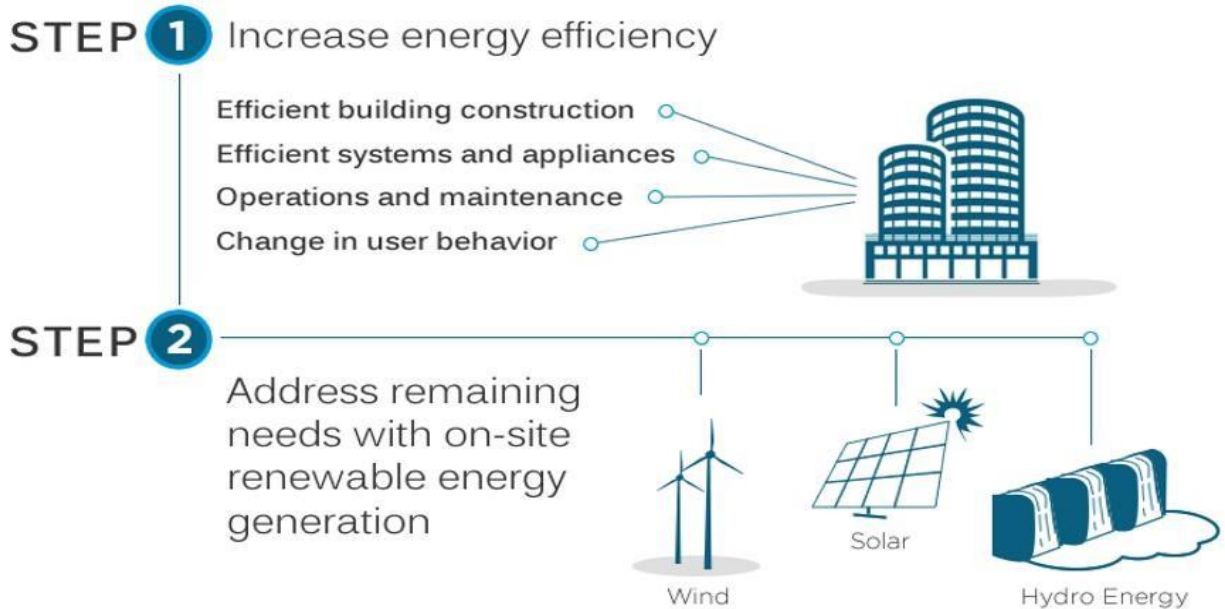
Re: SB 414 – Climate Solutions Now Act

Recommendation: Unfavorable

Supplemental Information: Net Zero Blds. | Rooftop Solar | Empire State Bld. Lessons | Carbon vs Elec Priority | Carbon Tax | Policy Alternatives | State Lead

+ **Net Zero Energy Buildings – Compliance Challenges Both Technical and Regulatory**

To Create a Zero Energy Building...



A Zero Energy Balance buildings is designed to use half or one third of the energy a conventional building would require. The balance of the building's energy need is met through on-site renewable energy generation and off-site power purchase agreements in locations that can be delivered to the site by local utilities. The LEED Zero Energy Balance certification specified in the bill requires not only that energy consumed on-site be offset but also energy lost during transmission from the generating source. This increases the amount of energy **the building must offset 2-3 times the amount of energy consumed on site.**

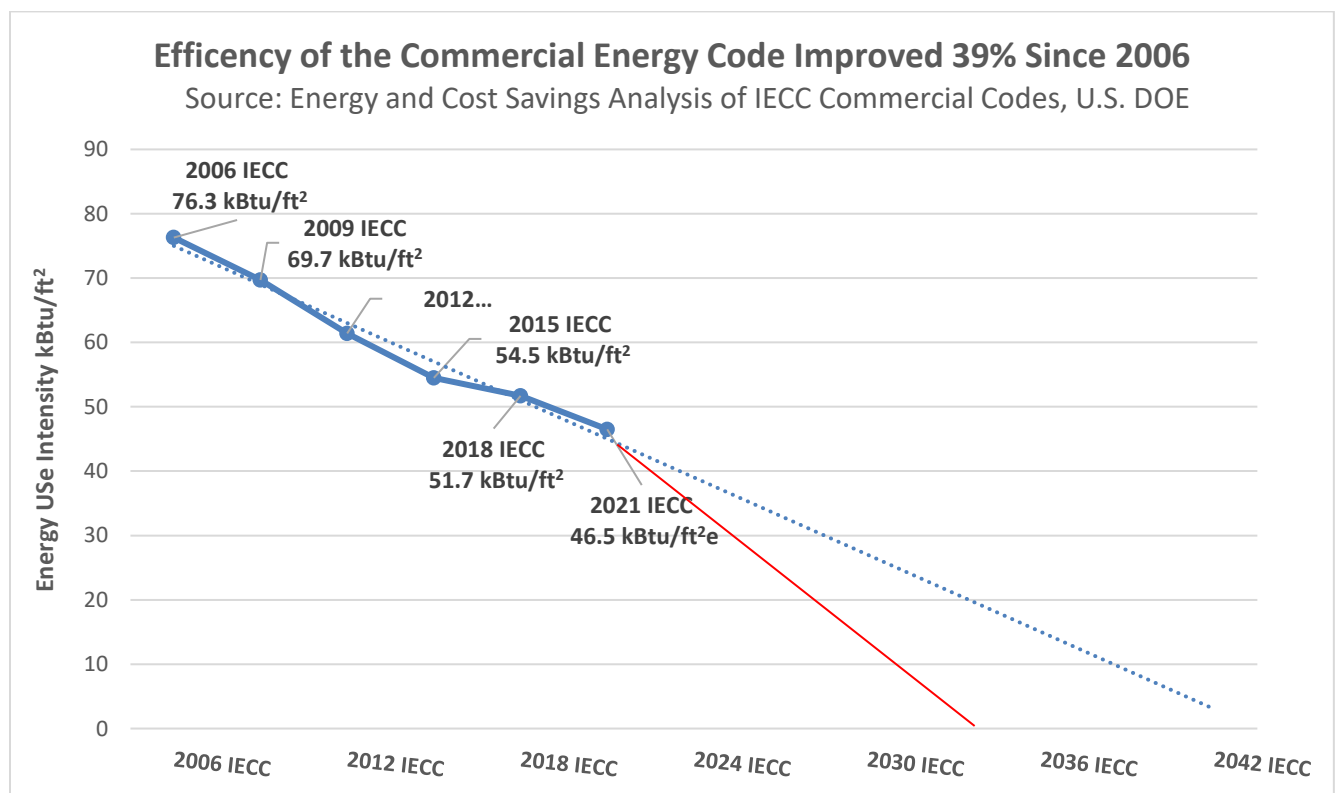
Integrating renewables at that scale will require significant advancements in the functionality of the utility grid and the removal of barriers to on-site power generation. **Physical deficiencies in the grid and in regulatory policy create barriers to accomplishing Step 2 in the illustration above.** For commercial real estate current rules on net metering, virtual net metering and meter aggregation limit the size of systems, the amount and price of power returned to the grid and prevent generated power from being shared among a portfolio of related buildings.

Multistory buildings, and high energy uses like hospitals, data centers and restaurants will find it extremely difficult to reach Zero Energy balance. A National Renewable Energy Lab technical paper concluded 3% of four-story buildings had the potential to reach net zero because of the small roof area compared to the interior space. Even ultra-efficient buildings will require easy access to locally sourced,

off-site wind and solar energy in amounts that are not currently available. Alternatively, the state would need to allow building owners to enter into power purchase agreements without being geographically limited to local utilities, Maryland, or the PJM service territory.

Construction costs should also be a consideration. [A study of net zero office and multifamily construction in Washington D.C.](#) found that, even after a \$5m solar incentive payment, initial costs were 5%-19% higher than the same building built to meet LEED Platinum. D.C. is working on incentives and special loan programs to break down first cost barriers and unlock savings. Maryland’s climate commission recommended incentivizing Net Zero construction as part of its policy making structure for the buildings sector discussed below.

The efficiency of the International Energy Conservation Code improved 39% between the 2006 and 2021 codes, an average improvement of 2.6% per year. A similar rate of improvement will put the code at or near zero energy by 2042. The bill requires that new buildings perform at 30% below the energy code over the next five years and reach 60% below code within ten years. [red line] This will **require an average improvement of 6.6% per year, 2.5 times the historic rate of improvement.** The 40% reduction in energy use between 2030 and the net-zero target date of 2033 will **require utility constraints to be resolved and off-site renewables to be locally available.** As buildings have become more efficient, deeper energy use reductions have become less cost effective and more difficult to achieve. The stepped process would **decouple Maryland from the International Building and Energy Code** requiring state and local regulators to develop compliance pathways. We do not believe this is advisable or realistic.



While the technologies exist to build net zero energy buildings under the right circumstances, the trade-offs make them impractical for widespread application across the entire market. To achieve necessary reductions in energy consumption, designers of net zero energy buildings often must put limits in the number of occupants, move computer servers or laboratory equipment off-site, reduce the building footprint or put limitations on the type of tenants and their activities. Broadly applied, the trade-offs necessary to achieve Net Zero Energy Balance would result in under-utilization of building sites and under-build of job centers which could affect land use and transportation patterns in ways counter-productive to both climate mitigation and Chesapeake Bay cleanup.

+ **Mandating Rooftop Solar Blocks Use of Less Expensive Renewable Power Options** – One of the concerns raised in [NAIOP’s hearing testimony](#) was that by prescribing means and methods the bill eliminated less costly ways to reach state climate goals. [The investment bank Lazard produces an annual report](#) comparing the Levelized Cost of Energy for various renewable and conventional power generation technologies. The chart below shows the cost of rooftop solar [first two rows] to be among the most expensive options costing between \$74 and \$227 per MWh. Utility scale solar [fourth and fifth rows] is among the lowest cost power generation options at between \$29 and \$42 per MWh.

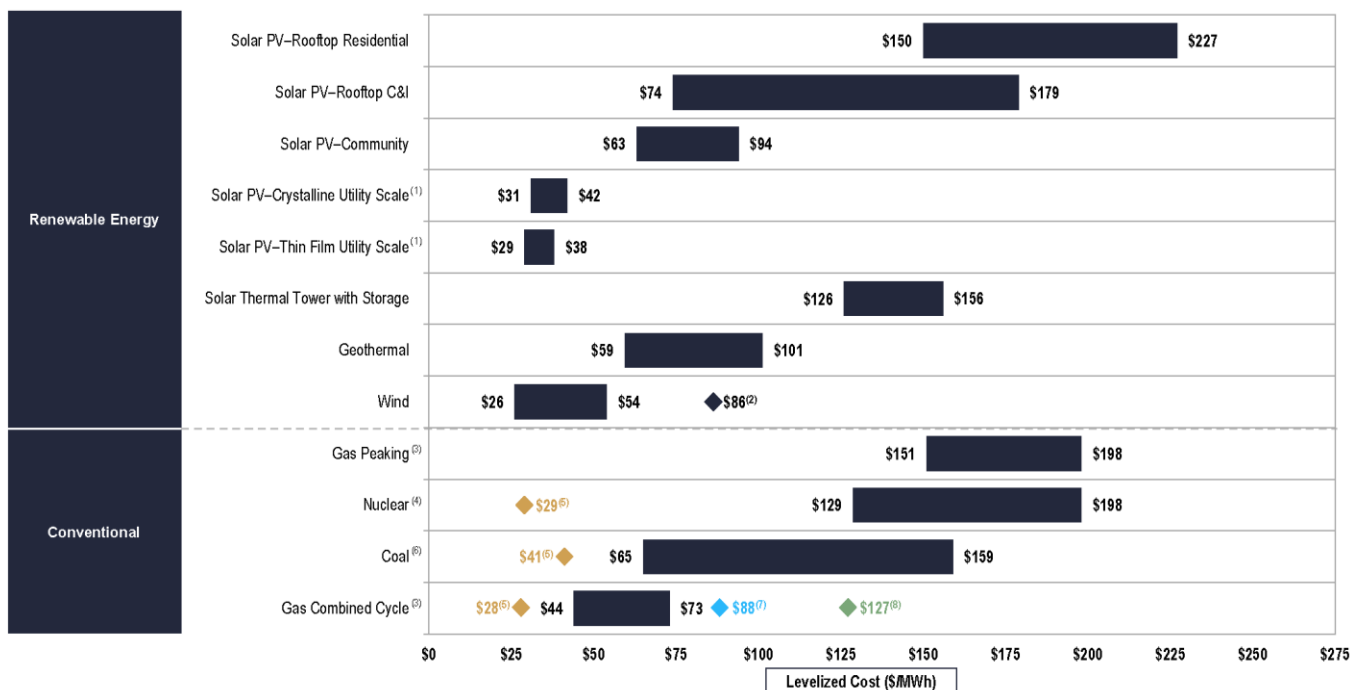
The cost differential is made worse because commercial property owners are not permitted to share power among a portfolio of buildings, net metering limits on generation and battery storage limitations negatively affect revenue generation. Future utility pricing decisions will also affect the financial performance of on-site solar as a tool to avoid peak demand charges. Among the most important

LAZARD

LAZARD’S LEVELIZED COST OF ENERGY ANALYSIS—VERSION 14.0

Levelized Cost of Energy Comparison—Unsubsidized Analysis

Selected renewable energy generation technologies are cost-competitive with conventional generation technologies under certain circumstances



Source: Lazard estimates.

prerequisites to reaching the potential for solar is the affordable scale up of batteries and other long term storage options.

The relationship between the roof area and floor area / energy use on the 20-story building called for in the bill is much larger than what our members consider to be a good candidate for rooftop solar. Solar on a building of this size would not provide meaningful amounts of power.

The solar ready rooftop mandate ignores the question of whether equipment might best be located elsewhere on-site or off-site such as parking areas where they might be paired with electric vehicle charging equipment or part of a larger ground-based array.

The requirement would encumber roof space that is often used for heating, air conditioning and ventilation systems or communications equipment that cannot be located on the ground. Rooftops also often provide tenant amenities and skylights often help meet targets for daylighting and reduce power consumption to meet lighting requirements.

- + **40% Energy Reduction – Cost Effectiveness and Danger of Stranded Assets** – Capturing energy efficiencies is integral to good building management for many reasons. The business case is compelling because of the positive effect that reduced operating costs have on net operating income which can increase the value of a commercial building under the right circumstances. However, policy makers should be aware that the leverage that improves building valuation when operating costs are reduced operates in the opposite direction too. Increased operating costs or long payback periods can reduce building valuation.

Energy retrofits often work but are unpredictable. A sizeable percentage of retrofits will provide an acceptable return on investment, but many will not, and subsidies will be necessary. It should also be noted, a major renovation also triggers requirements in the building code to bring fire, accessibility, and other building elements up to current code standards in addition to the energy improvement. For some buildings, the combined costs may be prohibitive. [A recent report issued by the Senate Democratic Special Committee on the Climate Crisis](#) predicts climate change will drive down the value of property held as collateral by banks when those assets are repriced to reflect increased physical risks or operating costs. This is one reason why the Climate Commission's building stock analysis is so important.

The bill provides for a waiver if the energy efficiency measures do not provide a return on investment within 15 years. As discussed below, energy projects for state buildings are based on 5 yr. returns. As discussed above, the ownership group at Empire State Building were guaranteed a 3 yr. return. By way of comparison, the US Department of Energy's National Renewable Energy Lab [NREL] evaluates the economic potential of energy efficiency measures using a simple payback period of five years or less.

- + **Focus Should be on Carbon Reductions Not Eliminating Energy Use** – According to MDE's emissions inventory carbon emissions from commercial buildings amount to about 7% of annual state-wide emissions. The bill's focus on requiring Zero Energy Balance new construction and deep energy retrofits in existing buildings **changes the center of effort away from carbon reductions.** Energy conservation

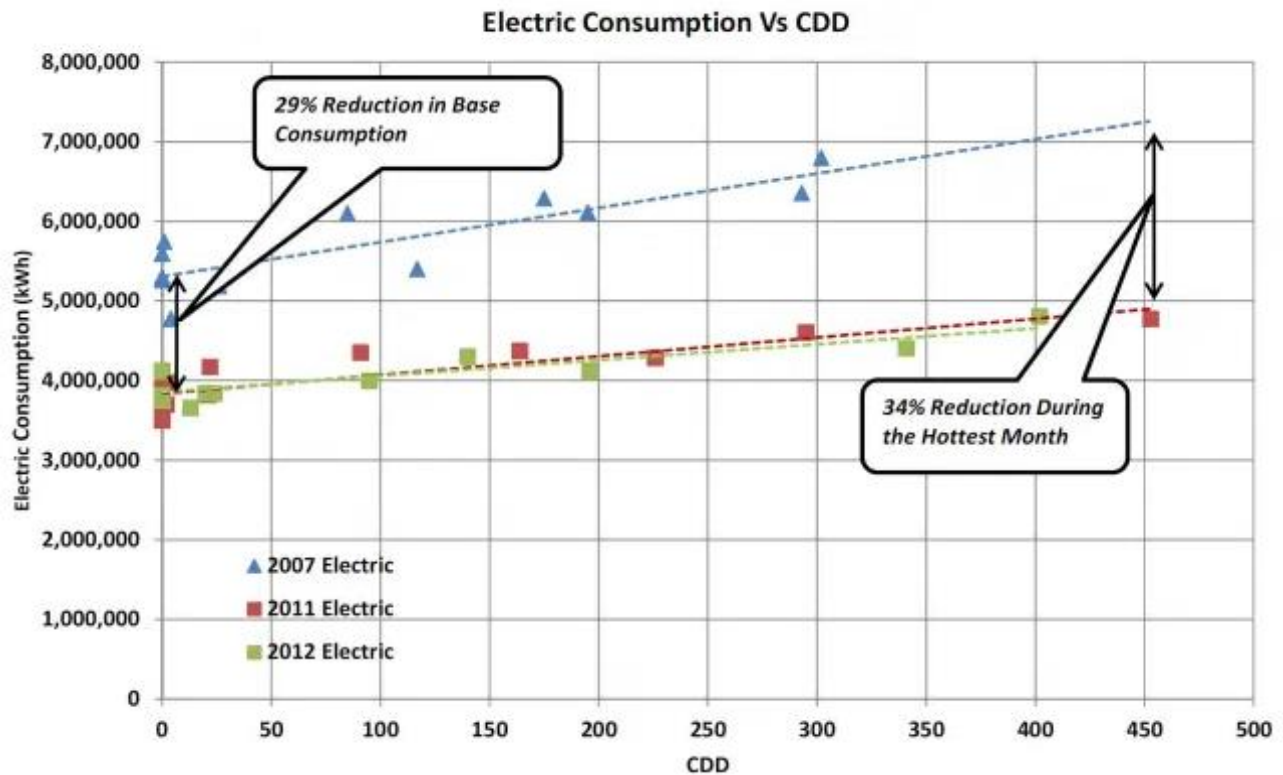
practices can be cost effective, but at deeper levels provide diminishing returns on investment. Energy efficiency only reduces greenhouse gas emissions when displacing energy generated by carbon-based fuels. The approach required by the bill will provide fewer emissions reductions at higher cost as the Renewable Portfolio Standard increases the percentage of zero carbon electricity generation.

- + **Climate Commission’s Building Sector Policy Making Is A Better Alternative** - This bill would make moot the Climate Commission’s recommended workplan for **developing a cost-effective emissions reduction strategy for the building sector**. During 2020, the climate commission held a series of subgroup and working group meetings on energy use and emissions in the building sector. The [Commission’s work plan for 2021 includes a series of recommended actions](#) related to reducing emissions from the building sector, including:
1. Allowing utility incentive programs to pay for reducing emissions via fuel switching of space and water heating equipment.
 2. Commissioning a study of the market potential and consumer economics of building electrification examining incremental first costs payback periods, appropriate incentive levels and the greenhouse gas reduction potential. [[Rhode Island](#), [Connecticut](#), and [New York State](#) have conducted studies to focus efforts on least cost pathways to carbon reduction.]
 3. Incentivize Net Zero construction
 4. Producing an energy transition plan for the building sector by the end of 2021.

The Net Zero Energy Balance new construction and deep energy retrofit strategies were not presented during the commission’s 2020 work, therefore the economic and emissions outcomes have not been modeled. By mandating means and methods and limiting technologies, the bill by-passes GGRA provisions in ENV 2-1206 that require an MDE feasibility analysis as well as the allowed use of alternative compliance mechanisms such as offsets and credits or technologies including carbon sequestration.

- + **Lessons Learned from the Empire State Building Energy Efficiency Project** – The Empire State Building is one of the highest profile buildings to undergo a major energy efficiency retrofit. The building completed a renovation and energy efficiency retrofit that resulted in more than a 38% reduction in energy use. It is an inspiring project, but **the process may be more repeatable than the results. The energy reductions and a 3-year payback period were [guaranteed by Johnson Controls](#)** the mechanical contractor on the project. Vacancy in the building permitted the project team to remanufacture 6,500 windows in the building. Empire State Building had the benefit of ~\$100m per year income from the observation platform during the renovation.

The [Energy Institute presented a before and after comparison](#) of energy consumption data for the Empire State Building. The blue line is the pre-construction energy consumption, red and green are post construction. The amounts are impressive but vary based on weather conditions and tenant activity. As much as **50% of the energy cost savings were achieved through tenant behavioral changes** and reductions in plug loads.



By way of comparison, Jonson Controls expected to **achieve a 20% [reduction in energy for the City of Baltimore](#)**.

- + **Monetizing a \$50 per ton Social Cost of Carbon** – One of the reasons NAIOP has supported the GGRA over the years is that the policies implemented to achieve greenhouse gas reductions must also increase jobs and economic benefits. Even under this approach an economy-wide net benefit can mask significant and disproportionate costs on certain sectors of the economy.

While NAIOP has supported the Regional Greenhouse Gas Initiative - which prices powerplant emissions like a carbon tax - and are receptive to the Transportation Climate Initiative's carbon cap and fee approach to decarbonizing motor fuels, we have concerns about an economy-wide \$50 per ton cost of carbon built into all climate planning decisions. Advocates argue this information would be important for future planning purposes. That may be, but it would almost certainly **lead to adoption of compliance strategies based on future environmental benefits or avoided costs that cannot be monetized today by businesses and households** that have pay for and implement the practices. This is of particular concern for the building sector because increased capital costs and operating expenses reduce building valuations and create problems for debt financing.

Fortunately, Maryland has successfully balanced economic growth and emissions reductions. [Maryland was recently recognized by the World Resources Institute](#) for decoupling the two - achieving deep greenhouse gas reductions and growing the economy. This combination is vital to future success and public support as the pathway forward gets more difficult.

- + **State Lead-by-Example - Mandates on Private Buildings Are More Stringent than State** – Targets for energy efficiency in state buildings were established by the General Assembly in the 2020 session. [Chapter 289 / House Bill 662](#) directs the Department of General Services [DGS] to assist state agencies in **reducing average energy consumption 10% from 2018 levels by 2029**. The Department is to identify low-cost measures for increasing energy efficiency that, **over the following 5 years, will result in energy cost savings that meet or exceed the costs of the measures**. For larger projects the state, at its discretion, can enter energy services contracts that guarantee up to a **20% reduction in energy use over a 15-year period**. The bill requires private buildings to achieve a 40% reduction in energy use over 15-year period at every major renovation and change of use.

State projects conduct a **life-cycle analysis** specified in the DGS Procedure Manual for Professional Service. The analysis must review four alternative HVAC systems. Unlike the life cycle analysis in the bill, the **state version does not include future costs of fossil fuel combustion from and carbon pricing** to be included in life cycle costs standards. [SB 414 pg. 27, ln 1-24]

Net Zero Energy school construction applies only to one to public school building per county and then only when special funds are available. The requirement can be waived. The corresponding private buildings zero energy requirement does not include these accommodations.

HB0583 (SB0414) - LOI.pdf

Uploaded by: Fahrig, Landon

Position: INFO



TO: Members, House Environment and Transportation Committee
FROM: Mary Beth Tung – Director, MEA
SUBJECT: HB0583 – Climate Solutions Now Act of 2021
DATE: February 11, 2021

MEA POSITION: Letter of Concern

House Bill 583 poses significant fiscal challenges to MEA, as well as raises several issues generally.

Ratepayer Impact

The bill would extend EmPOWER energy efficiency and conservation programs from 2023 to 2026. The bill would also increase the incremental annual energy savings goal from 2% to 3%.

The proposal does nothing to alter the EmPOWER ratepayer funding mechanism, which would increase costs to ratepayers. Currently, EmPOWER has resulted in uncollected program costs of over \$800 million that will ultimately be collected from ratepayers. The increased annual requirement would likely exacerbate the debt issue unless there is an increase in the annual surcharge; which would negatively affect the current practice of limiting ratepayer impact. Also, considerations to lower the energy savings from Conservation Voltage Reduction (CVR) which accounts for over 25% of some utilities annual savings, and potential changes to lighting standards and lighting useful life could significantly increase the cost of achieving the required 3% annual savings.

RGGI Revenue - Generally

Historically, the Regional Greenhouse Gas Initiative (RGGI) auctions have provided the bulk of funding to the Strategic Energy Investment Fund (SEIF) which in turn funds MEA programs as well as a number of other initiatives throughout the State. Some advocates have mistakenly been citing a Maryland Department of the Environment (MDE) report, believing that RGGI will bring in an "additional" \$446 million this decade. This has been incorrectly interpreted to mean that RGGI annual proceeds will go up by ~\$45 million per year in the immediate future. The MDE report is in reference to a RGGI rulemaking more than two years ago, which included the comparison of two distinct scenarios for rules under which RGGI *could* be operated. It was a forecast of a proposed structure for RGGI. It was never an estimate of additional money that could be counted on compared to current or recent revenues.

To be clear, SEIF will not receive \$45M more from RGGI this year than it did last year unless the RGGI auction revenue suddenly doubles, which is unlikely given market conditions and the RGGI cost containment reserve program currently in place. Even if MEA did see a substantial increase in RGGI revenue, it would only be restoring RGGI revenue to what it once was. RGGI revenue in FY20 was down ~37% from its peak.

RGGI Funding Cap, Diversion, and Formula Alterations

The bill proposes to limit the revenue for programs currently funded by RGGI proceeds by capping and diverting any revenues above \$50 million. The distribution of RGGI proceeds is formulaic. Therefore, the impacts of this new cap-and-divert initiative are easily approximated. Utilizing the FY22 budget analysis for comparison, we know that funding for energy assistance programs within the Department of Human Services would decrease by ~\$7 million and low-to-moderate (LMI) energy efficiency programs within MEA would see a decrease of \$1.7 million. Collectively, the bill reduces resources needed to lessen the burden of energy costs, especially during a period in which economic recovery should be paramount.

In addition to a new cap-and-divert approach to MEA funding, the bill also further constrains funds within the renewable and clean energy programs account by requiring the annual transfer of at least \$500,000, but up to \$2.5 million, outside of MEA for a “healthy soils” program. Recent RGGI revenue would place this transfer at or near the \$2.5 million mark on an annual basis. The renewable and clean energy account and SEIF more generally are already incredibly constrained. This puts at risk existing renewable energy, transportation sector, and grid resilience programs within MEA. With the impacts of this legislation, some of MEA’s most popular and effective programs, including those that help deploy Zero-Emission Vehicles (ZEVs) and solar, would likely be sacrificed entirely.

MEA FY20 programs will help garner over 43.9 million kWh of generated or avoided electricity, 159,000 therms of natural gas savings, 28,000 kW of new solar photovoltaic capacity, 1,100 tons of new ground source heat pump capacity, 14,000 gallons of gasoline saved and an additional 1,250 gallons of diesel saved. More specifically, in FY20 MEA utilized the renewable and clean energy programs account to reduce carbon emissions by an estimated 375,089 metric tonnes.

MEA believes strongly that the SEIF already funds targeted and proven programs producing greenhouse gas (GHG) emission reductions, reliable energy supply, energy efficiency, and the infrastructure needed for economic development and recovery; including programs targeted to assist traditionally marginalized communities. MEA further believes that there may be existing federal resources for programs like “healthy soils” that should be tapped prior to the permanent diversion of RGGI funds. This is especially true in this time of significant financial constraint. The bar to implement new initiatives that will effectively supplant existing MEA programs should include convincing evidence that the diversion of funds will result in a greater benefit as it relates to the allowable uses of SEIF. Stated another way, just because one *can* do a thing doesn’t necessitate that one *must* do that thing.

Commission Membership

The bill will expand the role of the Commission on Environmental Justice and Sustainable Communities (Commission) to include the development of “specific recommendations to address environmental justice concerns, reduce emissions of greenhouse gases and co-pollutants, and build climate equity and resilience within disproportionately affected communities; and... [s]et goals for the percentage of State

funding for greenhouse gas emission reduction measures that should be used for the benefit of disproportionately affected communities...”.

MEA, as previously highlighted in this text, operates a bevy of beneficial programs that are essential to the State’s GHG reduction goals. Specifically included in these programs are those targeted at increasing energy and financial resilience. For these reasons, it would be appropriate that MEA be represented on the proposed Commission.

Just Transition Employment and Retraining Working Group

The bill creates a Just Transition Employment and Retraining Working Group (Working Group) within the Commission. That Working Group is tasked with, among other things, identifying “[e]nergy-intensive industries...”. “[s]ites of electrical generating facilities that may be closed as a result of a transition to renewable energy...”, and “[s]ector-specific impact of the State’s greenhouse gas emissions reduction plan on the State’s current workforce”.

Similarly to the Commission, the tasks of the Working Group are heavily related to energy issues, yet the State’s authority on such issues, MEA, is excluded from involvement. In fact, two specific “environmental advocacy groups” are identified (though the focus of the Working Group is not environmental in nature) but neither MEA nor the Power Plant Research Program (PPRP) within the Department of Natural Resources are tapped for their subject matter expertise.

PPRP provides a framework for the comprehensive statewide review of all electric power issues with the goal of balancing need, cost and impact. MEA funds or administers a number of workforce training programs for the clean energy economy, and advises on policy that affects the transition to a clean energy workforce. The State does not yet have a strong data baseline of clean and traditional energy jobs in terms of quality, equity, and number to perform the Working Group’s mandate. However, MEA is currently funding research that will inform State policy regarding where training and recovery resources can be best applied.

It would be appropriate to include representatives from PPRP and MEA in the proposed Working Group.

Other Points of Interest

Carbon Capture, Utilization, and Storage

The bill prohibits MDE from including Carbon Capture Utilization and Storage (CCUS) as a measure to reduce GHG emissions. The requirement for MDE to create a plan to reach net zero emissions by 2045 will be difficult, if not impossible, without CCUS. This is a view gaining global recognition, where even at the Intergovernmental Panel on Climate Change (IPCC), three of their four projected pathways (2018) for carbon reduction rely on some form of carbon capture technologies. This is a key, developing technology in the fight against climate change. Furthermore, the State cannot even begin to decarbonize the industrial sector without this technology. If net zero carbon is the goal, it is inconceivable that CCUS

is omitted from state policy. This places into further doubt about whether the State is truly interested in reducing greenhouse gases.

Energy Codes

Maryland has already mandated the adoption of the International Energy Conservation Code (IECC) every three years. The next IECC cycle will be in 2021; which the State, followed by the counties, will be required to adopt within a certain timeframe. However, the bill would require energy reductions of a certain percentage based on the 2018 IECC beginning in January 2024 and running through January 2026. This means that projects will need to be designed with an eye on both the 2018 IECC as well as the then current IECC code (likely the 2021 IECC). The bill actually allows for more stringent standards, but this still means that multiple energy codes may need to be considered in the design and construction phases of development, likely resulting in increased design costs, market uncertainty, and an inefficient allocation of valuable resources.

Net Zero Schools

MEA helped fund the construction and design of Howard County's Wilde Lake Middle School, and now has experience with, and has helped to fund two additional schools in Baltimore City, which were dedicated this past summer, 2020. The benefit of one net zero school may be less than the benefits that could be had for the same overall cost by utilizing more cost-effective upgrades to multiple schools. This would also increase the geographic diversity of the overall benefits.

MEA is working closely with the Interagency Commission on School Construction to understand the energy management practices of schools and where investment can yield the greatest financial, safety, performance, and environmental benefits. As schools adapt to re-opening, significant investments will be needed in heating, cooling, and ventilation, including the conversion of major systems to lower-carbon sources of energy. While supporting net zero schools is desirable in the long term, addressing more immediate needs may provide greater GHG emissions reductions at lower costs. This should be a policy focus.

Major Renovation Definition

Part of the definition of "major renovation" is tied to "project costs exceeding 50% of the assessed value of the building". Tying this definition to costs could create a regulatory environment rife with system-gaming. Costs can vary heavily based on contractor assumptions, required levels of environmental mediation, and local wage rates. This may result in, or even encourage, system-gaming; the purposeful avoidance of triggering the "major renovation" definition.

2021 PHI Testimony HB583- Climate Solutions Now Ac

Uploaded by: Lanzarotto, Kathryn

Position: INFO



An Exelon Company



An Exelon Company

February 11, 2021

112 West Street
Annapolis, MD 21401
410-269-7115

**Informational – House Bill 583
Climate Solutions Now Act of 2021**

Potomac Electric Power Company (Pepco) and Delmarva Power & Light Company (Delmarva Power) appreciate the opportunity to comment on House Bill 583 Climate Solutions Now Act of 2021. HB583 would set higher greenhouse gas emissions reductions that the State must achieve by 2030 and 2045, respectively. Additionally, it would also set procurement standards for state purchases of electric vehicles and require that bus purchases be 25% electric in 2021 ramping to 50% in 2025, and light duty electric vehicle be 50% in 2021 ramping up to 100% in 2025. HB 583 would also impact energy efficiency savings targets established for EmPower Maryland and create requirements for solar on new buildings over a certain square footage. Finally, HB 583 adds an environmental justice component to the strengthened GHG targets, with the intention of identifying and targeting for economic opportunities, communities harmed by discrimination and/or the effects of pollution and climate change.

HB 583 advances Maryland's efforts to decarbonize, however, the details with respect to how Maryland will achieve those goals, particularly as it relates to the energy sector, will be critical. For example, increased penetration of distributed energy resources such as solar can place stress on feeders within our system and as a result, planning and investment will be critical to ensure a reliable interconnection process for all customers.

HB 583 increases the target for energy efficiency programs currently reviewed and approved by the Maryland Public Service Commission (PSC). Pepco and Delmarva applaud Maryland for recognizing the importance of energy efficiency as an important tool in driving down greenhouse gas emissions. Currently Maryland has one of the most aggressive energy savings goals of any state, requiring a 2% energy sales reduction target through its EmPower Maryland programs. EmPower programs have been active in the state since 2008. While Pepco and Delmarva have developed effective and successful programs to date, in order to achieve a 3% energy reduction target, Pepco and Delmarva's spend on EmPower programs would likely need to triple or quadruple. Pepco and Delmarva highlight this by way of emphasizing that providing cost effective energy efficiency programs is key to these programs being of value to all stakeholders. It is unlikely that a 3% energy savings target will result in programs that meet or exceed current cost effectiveness standards.

Pepco and Delmarva also note that building and lighting codes and standards are continuously evolving, creating organic energy efficiency benefits for customers; Maryland does not currently recognize these benefits, however, in its calculation of whether EmPower program targets are being met. Finally, it is unclear as to how the transition toward increased vehicle electrification as well as net zero energy goals will align with energy efficiency targets. As currently structured, increasing amounts of electrification from transportation and, potentially, buildings, will make energy efficiency targets even more challenging to meet. With all of these challenges and uncertainties, Pepco and Delmarva believe additional discussion is warranted prior to moving forward with higher energy efficiency targets. Pepco and Delmarva urge consideration of moving toward an approach that measures carbon benefits of reduced usage and the beneficial aspects of electrification to better align with the goals of this bill and provide additional flexibility as technology, standards and policies evolve.

Pepco and Delmarva agree that encouraging the growth of EVs is critically important because transportation is the largest contributor to greenhouse gas emissions in Maryland. In addition, transforming the transportation sector to one that is fueled by electricity has immediate local air quality and public health benefits, particularly for those communities that live closest to high volume transportation corridors, bus routes and bus depots, etc. HB583 recognizes the importance of reducing emissions in the transportation sector by setting several targets that will help advance transportation electrification in the state.

We look forward to working with the sponsors and key stakeholders on House Bill 583 in order to ensure the bill achieve its goals, effectively, efficiently and affordably. We believe reduction of the Empower targets is warranted in order to preserve the affordability of that program.

Proposed amendments to address these items are attached.

Contact:

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House Bill 583 Climate Solutions Now Act of 2021 Proposed Amendments:

On page 28, in lines 15 and 20, in each instance, strike “3.0%” and substitute “2.5%”.

2021 HB 583 Climate Change Now Act DGS LOI E&T ECM

Uploaded by: Robertson, Ellen

Position: INFO

Larry Hogan
Governor

Boyd K. Rutherford
Lt Governor



Ellington E. Churchill, Jr.
Secretary

Nelson E. Reichart
Deputy Secretary

OFFICE OF THE SECRETARY

BILL: House Bill 583 - Climate Solutions Now Act of 2021

COMMITTEE: House Environment and Transportation and Economic Matters

DATE: February 11, 2021

POSITION: Letter of Information

Upon review of House Bill 583 – Climate Solutions Now Act of 2021, the Department of General Services (DGS) provides these comments for your consideration.

The bill's impacts on DGS Capital Construction and Energy Projects:

- Public Safety Article §12-511 is changed to require any new buildings over 20,000 square feet of roof to be “solar ready”. DGS anticipates the costs of new **capital design and construction projects to increase by .7%** to accommodate this requirement. **Installing the solar panels themselves would require an additional \$5.25 per square foot.**
- Changes under Public Safety Article §12-511 also increase energy efficiency requirements in state building codes that exceed the 2018 International Conservation Code by increasing amounts starting with 30% in 2024 and increasing to net zero after 2033. Increasing the requirements in the energy code will increase construction costs of new and renovated buildings. Current energy codes are reviewed by the US Department of Energy to ensure that additional code requirements are cost-effective, in that the energy savings attributable to the new standard pays for itself, **but the requirement in this bill calls for no such review process.**
- State Finance & Procurement Article §3-602.1 is changed to require zero energy or net zero energy be applied to facilities with over 25% of the cost coming from State capital funds and if the building is 7,500 square feet or larger. Total **capital costs are anticipated to increase by 22%** for design and construction of new and major renovation projects.
- The above would positively impact the energy consumption of State Facilities and assist the State in meeting the Executive Order for State energy reduction. Operationally, if solar systems are added to a facility that generates energy greater than the need of the facility the solar is attached to, the DGS Energy Office may need additional resources to tie the increased generation into the State's renewable energy portfolio and use the excess on other State accounts.



- In addition to the first costs associated with achieving net-zero schools and facilities, State Finance & Procurement Article § 3-602.1, 4-809(7) would require the Maryland Green Building Council to "develop guidelines for evaluating the energy balance and achieving a net zero energy balance". Development of guidelines, and compliance with them, would require a continuous and ongoing effort by DGS support staff and the Maryland Green Building Council.
- Training will be needed for State project managers and design review staff to understand Net Zero requirements. This will increase their ability to ensure these projects are programmed, designed, and constructed to meet these requirements. Training is estimated at \$40,000 per year and on-going to ensure staff can remain updated in codes and technologies.
- For DGS to perform evaluations to ensure compliance with the Public Safety Article §12-513(B)(1) "...regulations shall require energy models for new construction to evaluate life cycle costs for (1) "a mixed-fuel option, including a combination of combustion-and electric-powered equipment." and (2) "require all reasonably foreseeable future costs....." the design efforts of architect and engineering consultants providing services will be increased and the efforts of design reviewers will be increased. Additionally, costs for training of DGS staff to enable capable performance of such life cycle cost analysis reviews will be required.

The bill's impacts on DGS Fleet and Fuel Management:

- The Bill requires 100% of the State Fleet of light duty vehicles be zero-emission by 2030. DGS currently has 74 light duty fleet vehicles, none of which are zero emission. This would require replacement of all vehicles. DGS understands the **cost difference to be \$10,604 between a traditional internal combustion vehicle and a fully electric vehicle** on a State contract. DGS's fleet is not scheduled nor budgeted for replacement. DGS will also need charging infrastructure in place to support an electric fleet, so there will be costs to procure and install charging stations.
- DGS has a fleet that includes sedans, SUVs, and police vehicles. Currently, the impact to expenditures can only be calculated for the replacement of sedans, since there are no existing replacement options for SUVs or police vehicles, and, therefore, costs cannot be estimated. DGS has 34 sedans in its fleet. The total cost impact of replacing those sedans with ZEVs **will be \$226,219 more than if they were replaced with conventional non-ZEV sedans. The cost of infrastructure to support the incoming ZEV is estimated to be \$72,500. Balanced with savings from fuel use reduction and decreased maintenance costs (for a savings of \$69,391) the net impact on fleet related expenditures will be \$229,327 through FY2026.**

- Offsetting some of the costs of transitioning to EVs is an expected reduction in per vehicle annual fuel and maintenance costs of \$2,805. The annual expected increase in vehicle costs would be \$54,973.
- DGS is leading a State-wide coordinated effort to identify Electric Infrastructure needs and ensure adequate infrastructure is in place to meet existing climate and transportation goals. DGS currently works cooperatively with stakeholders at MDOT, DBM, MEA, MDE, and others to ensure a coordinated approach to installing infrastructure at State facilities. Replacing all light-duty vehicles with ZEV would be an ambitious first step and would be in line with our current goals. **It is difficult to require all vehicles be ZEV, with no language for waivers, when there are usage cases that will not align with having ZEV or for which no option exists on the market.**
- Transitioning all State light-duty fleet vehicles to ZEV will have an impact on the Statewide Fuel Program and its revenues which are collected on the sales of fuel at State fueling stations. The program generates approximately \$800,000 in revenue per year, from the sales of fuels. Revenues will be impacted by fewer vehicles requiring fuel. Depending on the roll out of replacement vehicles across the State, **DGS could lose approximately \$735,000 in revenue or more by FY26.**
- The above referenced revenue is used for the agency division's operating expenses and will need to be absorbed elsewhere in the budget so that the fuel stations may remain fully functional until the entire fleet is electrified—something that may take many years. It is possible that there may be an opportunity to collect revenue through DGS owned Electric Vehicle charging stations in the future to offset some of the lost revenue.
- DGS notes that further than the 6-year scope of this fiscal note, there will be significant costs incurred for the decommissioning of the State's 120+ fueling sites. DGS will decommission all non-MDOT owned sites, which are expected to cost **\$250,000 per site**. MDOT should be queried on the decommissioning and funding of MDOT-owned refueling sites as they relate to this bill.

The bill's impacts on DGS's Capital Grants and Loans Program:

- State Finance & Procurement Article §3-602.1 changed from facilities with 100% state funding to facilities with 25% or more in State capital funds. Currently, the State's Capital Grants program is excluded. **This change would include capital grants and increase the cost of grantee's projects.** Many grantees are small entities; this requirement may be difficult for grantees to meet.
- In order to ensure that Capital Projects funded through the Capital Grants Program meet the criteria and standards established under the High-Performance Green Building Program the Capital Grants & Loans Office would need to add a minimum of **three Compliance Officers at \$60,000 each for a total fiscal impact of \$120,000.**

The bill's impacts on DGS's Office of State Procurement:

- House Bill 583 requires reporting from the Chief Procurement Officer (CPO) at DGS. In order to complete the reporting requirements, the State's eProcurement system (eMaryland Marketplace Advantage – eMMA) would need to have a query developed to fulfill this requirement. House Bill 583 would require collaboration between DGS and the DBM Fleet Management division on the total number of vehicles within the State's Fleet. The State would also need a **fleet asset management system and personnel** to track and report on this data as neither DGS or DBM has this technology and currently tracks its fleet manually.
- State Finance and Procurement Article § 14-417 of Senate Bill 414 requires reporting from the Chief Procurement Officer (CPO) at DGS on all agency purchases of vehicles. Currently, **DGS does not track the State's fleet, as these duties fall to the Department of Budget and Management (DBM).** DBM is responsible for managing the State's fleet and establishing the annual fleet specifications and requirements that are approved by the BPW. **It would be appropriate for this reporting requirement to be the responsibility of DBM with support from the CPO** to provide purchase data from procurements for light-duty vehicles conducted during the previous fiscal year. The CPO in coordination with DBM Fleet Management would establish the "light duty vehicle" specifications for procurements and ensure all purchases were in accordance with the specifications and tracked within the State's eProcurement system, eMaryland Marketplace Advantage (eMMA), to obtain the annual purchase data. DGS would require personnel to gather and compile the purchasing data from eMMA for the annual report.

For additional information, contact Ellen Robertson at 410-260-2908.

MDA - HB 583 - Letter of Info.docx-2.pdf

Uploaded by: Shirk, Cassie

Position: INFO



Maryland Department of Agriculture

Office of the Secretary

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
Joseph Bartenfelder, Secretary
Julianne A. Oberg, Deputy Secretary

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Maryland Department of Agriculture

Legislative Comment

Date: February 11, 2021

BILL NUMBER: House Bill 583
SHORT TITLE: Climate Solutions Now Act of 2021
MDA POSITION: Information

The Maryland Department of Agriculture (MDA) has reviewed House Bill 583 – *Climate Solutions Now Act of 2021* – and offers the comments below on the operational and fiscal impacts to MDA and the agricultural community.

Foremost, MDA recognizes the significant actions that will need to be taken to address climate change, and has been an active participant with the Maryland Commission on Climate Change (MCCC) as it updates the state's Greenhouse Gas Reduction Act (GGRA) Plan. Accordingly, the forthcoming GGRA Plan recognizes the increasingly important role our state's agricultural lands can play in mitigating climate change. The work of the MCCC has been robust and inclusive of many stakeholders to ensure an aggressive, but achievable, reduction in greenhouse gas emissions while the language of HB 583 would create new program requirements that demand personnel and resources not currently allocated to MDA.

New Commissions and Work Groups

House Bill 583 expands the Commission on Environmental Justice and Sustainable Communities (EJSC Commission) and creates the Just Transition Employment and Retraining Work Group (Work Group). The charge to the EJSC Commission is relevant to our rural communities and farms being impacted by poverty and climate change, as well as urban communities impacted by poverty and access to local, nutritious food. Likewise, the Work Group is charged with conducting a study to assess opportunities and impacts to our "working lands as Maryland transitions to a low-carbon economy. However, neither MDA and/or agricultural representation are mentioned among the named membership. Given the expansive charge to both the EJSC Commission and the Work Group, MDA would recommend including its agricultural expertise and the agricultural industry among its members. Additionally, the time commitment to

adequately serve and achieve the goals of the EJSC Commission and the Work Group will warrant new Departmental staff to consider the breadth of MDA programs subject to the goals.

The legislation would also enact a Commission on Innovation and Advancement of Sustainable Tree Plantings and Carbon Markets (Commission), and does name the MDA Secretary as a member. Among the charges to the Commission are developing a state plan to achieve a 5 million trees goal, and developing recommendations for a state carbon offset market. Again, the time commitment to adequately serve and achieve the goals of the Commission will warrant new Departmental staff to align the charge with existing program efforts.

Healthy Soils Program

MDA's Healthy Soils Program, created by 2017 legislation, recognizes the need to provide incentives to Maryland farmers to realize the full potential of soil health practices to improve soil function and to address climate change. The Department has been actively discussing soil health prior to the 2017 legislation, and is currently updating its online farm assessment tool to add carbon sequestration estimates to its nutrient and sediment capabilities. Additionally, MDA is formally evaluating conservation practices and incentive options within its Soil Health Advisory Committee that will create the framework of the Healthy Soils Program. Concurrent with the forthcoming recommendations of the Soil Health Advisory Committee, MDA and partners, have recommended a permanent, dedicated funding source for the Healthy Soils Program. As such, MDA appreciates HB 583 language to qualify the Healthy Soils Program as a "climate change and resiliency program" eligible for the state's Strategic Energy Investment Fund (SEIF). Funding is proposed to start in 2022, and would provide funding at \$500,000 annually or 5% of SEIF funds, whichever is greater. However, MDA also recognizes current SEIF program allocations may be over prescribed, and a redistribution of SEIF funds to new programs may create constraints on the fund pool. The Department would welcome discussions with other state agencies managing SEIF funds to ensure its most effective use.

Advancing Tree Plantings

The state and MDA have longstanding programs to promote the adoption of natural filters, such as tree plantings, to address water quality concerns. House Bill 583 would advance tree plantings to address climate change through two primary initiatives impacting agriculture: 1) Increasing the signing bonus payment for forested riparian buffers to \$1000/acre for agricultural producers enrolled in USDA's Conservation Reserve Enhancement Program (CREP). Currently, MDA pays a signing bonus for all enrolled CREP practices at \$100/acre per contract terms in the Memorandum of Understanding (MOU) between MDA and the USDA. Under President Trump's administration, revisions to the MOU would have required renegotiation of all MOU terms and likely, ultimately, disadvantaged Maryland's CREP offerings. While MDA fully expects the incoming USDA leadership under President Biden will also require changes, such as HB 583's increased signing bonus, to be documented in an MOU, it remains to be seen if President Biden's administration will require a full renegotiation of the MOU; and 2) Planting 5 million trees by 2030 in addition to programs already committed in 2019 GGRA. Opportunities for tree plantings on agricultural lands were assessed during the development of Maryland's Phase 3 Watershed Implementation Plan and recently included in MDA's Healthy Soils Program goals for the 2019 GGRA Plan. Stipulating additional acres for agricultural tree planting beyond those in the GGRA

Plan will be difficult to achieve and should be balanced with a commitment to preserve Maryland's working farmlands to protect open space, habitat, and the state's food supply.

Funding for the two initiatives described above largely come from the redistribution of Bay Restoration Funds, of which MDA is a current recipient of approximately \$12 million annually for its Cover Crop program. Cover crops are acknowledged as one of the most cost effective conservation practices for addressing water quality and soil health on the agricultural landscape. Should the Maryland Department of Environment be adversely impacted by a decreased allocation from the Bay Restoration Fund, it would still remain critical to retain MDA's Cover Crop program funding level.

If you have additional questions, please contact Cassie Shirk, Director of Legislation and Governmental Affairs, at cassie.shirk@maryland.gov or 410-841-5886.

Letter of Information – HB 583 – The Climate Solut

Uploaded by: Teffeau, Matthew

Position: INFO



February 11, 2021

The Honorable Kumar Barve
Environment and Transportation Committee
210 House Office Building
Annapolis, MD 21401

Re: ***Letter of Information – HB 583 – The Climate Solutions Now Act***

Overview

Choptank Electric Cooperative and Old Dominion Electric Cooperative (ODEC) appreciate the opportunity to provide input to the Committee ***on HB 583 – the Climate Solutions Now Act***. The legislation sets an ambitious goal for Maryland to become carbon neutral by 2045. While the legislation does not directly include requirements for electric utilities, the legislation and its goals will have a significant impact on electric utilities and the power generation, transmission, and distribution system owned by those utilities. As not-for-profit, consumer-owned utilities, Choptank and ODEC have a significant interest in how the legislation will impact cooperatives and the consumers who own the cooperatives.

Choptank and ODEC continue to reduce the greenhouse gas emissions from our power supply, having reduced carbon dioxide emissions by 42 percent since 2005. We are enhancing our renewable energy portfolio, evaluating, and investing in battery storage technology, and undertaking a variety of efforts to work toward a clean energy future. Please see last week's announcement by ODEC to achieve net-zero carbon emissions by 2050.

Informational Education and Issues of Concern with HB 583

HB 583 as written will have a significant impact on all segments of Maryland's economy, and achieving net-zero greenhouse gas emissions by 2045 will have both direct and indirect impacts on the electric power system in the state.

- ***Focus on reliability of the electric power system***

In developing the plan to achieve net-zero greenhouse gas emissions by 2045, the State of Maryland should include recommendations to ensure the continued reliability of electric power. Achieving significant and sustainable GHG reductions will require dramatic advances in technology. If technology advancements do not materialize as expected, there may be a need for additional time to achieve the legislation's goals and/or there may be a need to continue to rely on current power generation resources. **HB 583** and the plan required to be developed by the Department should include a provision recognizing that maintaining electric power reliability is essential.

For example, legislation passed in Virginia in 2020 (the Virginia Clean Economy Act) included provisions to allow power plant operators to petition the Virginia State Corporation Commission to delay the closure of a

fossil-fuel power plant if the closure of that plant would result in compromising the reliability of electricity in the state. A similar provision should be included in the Climate Solutions Now Act.

- ***Modify net-zero greenhouse gas timeline***

The legislation's requirement to achieve net-zero greenhouse gas emissions by 2045 is a very ambitious goal. ODEC has recently set a strategic goal to reduce its CO₂ emission, achieving net zero CO₂ emissions by 2050, with an interim goal of a 50 percent reduction in its CO₂ intensity by 2030. To achieve this goal, ODEC will continue investing in renewable resources, invest in battery storage technology, and monitor advanced power generation technologies (including hydrogen, renewable natural gas, small modular reactors, and others). ODEC will also lead efforts to help strategically electrify segments of the region's economy that currently rely on fossil fuels to help the transportation, building, agriculture, and other economic sectors reduce their greenhouse gas emissions.

Choptank Electric Cooperative Background

Founded in 1938, Choptank Electric Cooperative is a not-for-profit organization that exists to provide reliable and cost-effective electricity. This service improves the quality of life for our 54,350 member-owners.

Following the passage of the Rural Electrification Act in 1936, Choptank Electric Cooperative's first 78 miles of distribution lines were energized in Caroline County on Dec. 15, 1939, serving 184 members. Choptank Electric Cooperative joined [Old Dominion Electric Cooperative \(ODEC\)](#) in 1976 to obtain lower wholesale power costs.

Choptank Electric Cooperative has 10 board seats. One seat represents each county served by Choptank Electric along with one additional seat which represents the Ocean Pines District. Board members are elected on a three-year term basis at the Annual Meeting.

Old Dominion Electric Cooperative Background

ODEC is a not-for-profit power supply cooperative providing electric energy, capacity, transmission, and other services to its 11 consumer-owned distribution electric cooperatives in Maryland, Delaware, and Virginia. Those cooperatives ultimately serve more than 1.5 million people in the mid-Atlantic region. ODEC is rate-regulated by the Federal Energy Regulatory Commission and a registrant with the Securities and Exchange Commission, which requires significant transparency in ODEC's operations through annual and quarterly [reports](#).

ODEC has shifted its energy resources away from coal and market purchases and toward cleaner energy sources over the past fifteen years. The cooperative plans to continue that shift, with additional solar resources being developed, investing in battery storage opportunities, and leading efforts to strategically electrify the economy to help other economic sectors benefit from ODEC's historic and future emissions reductions.

ODEC's energy portfolio has shifted away from coal and market purchases over the past 15 years. Energy from the cooperative's sole coal plant (co-owned with Dominion Energy) has decreased from 25% of its portfolio to 5%, while renewable and other non-CO₂ emitting resources now make up 20% of ODEC's portfolio. (Note that Renewable resources are through Purchase Power Agreements (PPAs), not direct ownership, and ODEC sells renewable energy credits related to these purchases to its members and non-members.) In 2012 ODEC canceled plans to build a new coal-based power plant in Virginia, and later decided to build a state-of-the-art combined cycle natural gas plant in Maryland, which is among the most efficient plants of its type in the country. ODEC added 300 MW of wind and solar resources to its portfolio beginning in 2008.

More information about ODEC can be found on our [website](#).

Conclusion

We appreciate the opportunity to present this testimony, and look forward to working with the Committee, the bill's sponsors, and other stakeholders to help Maryland achieve its clean energy and CO2 reduction goals.

For more information, please feel free to contact:

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EMBARGOED UNTIL 8 A.M. EST
February 4, 2021

Contact: Shena L. Crittendon
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Old Dominion Electric Cooperative Sets Net Zero CO₂ Emissions Goal

Glen Allen, VA- Old Dominion Electric Cooperative (ODEC) today announced a goal to achieve net zero carbon dioxide emissions by 2050. ODEC has also set an interim goal to reduce its carbon intensity by 50% (from 2005 levels) by 2030. ODEC will be the second generation and transmission cooperative in the country to set a net zero carbon goal.

Since 2005, ODEC has reduced CO₂ emissions by 46% and has reduced its carbon intensity by 44%. The 2050 goal further emphasizes the cooperative's dedication to using renewable energy sources and builds on ODEC's mission of providing affordable, reliable, and sustainable power to its 11 member distribution cooperatives.

More than 35% of ODEC's energy was generated by non-CO₂ emitting resources in 2020, and power from ODEC's only coal plant (Clover Power Station) has declined from 25% of its power supply in 2005 to just 5% in 2019. Currently, ODEC has 300 MW of wind, solar, and landfill gas as part of its resource mix* and has plans to add additional renewable

resources in the future. ODEC is also investing in battery storage opportunities and is seeking proposals from several vendors to develop projects throughout its members' service territories. ODEC also works closely with its members to offer [retail consumer- members energy efficiency options](#).

"We're dedicated to expanding our carbon-free energy generation. ODEC is committed to evaluating all options and working with our Board to identify the most cost-effective alternatives to further reduce our CO₂ footprint while keeping electricity affordable and reliable," said Marcus Harris, president and chief executive officer of ODEC.

“ODEC plans to vigorously pursue its carbon reduction and clean energy expansion goals but will also ensure that achieving that goal will not disrupt the reliable electric service it has provided for more than 70 years,” added Harris.

ODEC recognizes the necessity of a continuous flow of electricity to power the region. Harris noted that the Virginia Clean Economy Act included a provision that would give investor-owned utilities the opportunity to petition the State Corporation Commission to keep a power plant open if closing the plant would threaten the reliability or security of electric service to customers.

John Lee, chairman of the Board of Directors of ODEC, states, “Since its inception, ODEC has been an innovative leader among cooperatives in its efforts to provide affordable and reliable electricity. Today, we very proudly announce that, once again, we’re taking an industry leadership role with our carbon reduction, and clean energy goals. We continue to be focused squarely on doing what is in the best interest of our consumer- members, and that includes being a sustainable energy leader. This net zero goal fits right into that mission. We’re committed to lead the way in exploring and adopting strategies that will mitigate the environmental impact of our efforts to provide electric service to our members.”

“I commend ODEC for being only the second power generation cooperative in the country to adopt a net zero carbon goal,” said Del. Rip Sullivan (D-Arlington). “I look forward to working with them to foster policies in the coming years that accelerate the decarbonization of our electricity sector.”

“We applaud ODEC for recognizing the need to decarbonize the power sector and look forward to working with them going forward to ensure we equitably transition to clean energy,” said Will Cleveland, senior attorney for the Southern Environmental Law Center.

“Rural electric cooperatives serve over 40 million people while selling over 10 percent of the nation’s electricity,” noted Bob Perciasepe, president of the Center for Climate and Energy Solutions and former deputy administrator of the Environmental Protection Agency. “They have unique challenges given their size and geographic distribution as

the country needs to move to net zero greenhouse gas emissions. By establishing a goal and a vision for net zero emissions in 2050, ODEC is presenting an example for other cooperatives across the country and is to be commended for this leadership.”

About ODEC:

Headquartered in Glen Allen, Virginia, ODEC is a not-for-profit, member-owned, power supply cooperative. It supplies the wholesale power requirements of its 11 member electric distribution cooperatives, which provide reliable, affordable electricity to 1.5 million people in 70 counties in Virginia, Maryland and Delaware. Learn more at www.odec.com

*Related to our contracts from renewable facilities from which we purchase renewable energy credits. We sell these renewable energy credits to our member distribution cooperatives and non-members.

House ENT Propane HB 583 and HB 334

Uploaded by: Valentino, Ellen

Position: INFO



To: House Environment and Transportation Committee

From: Ellen Valentino

Date: February 12, 2021

Re: HB 583 Climate Solutions Now Act of 2021
HB 334 MTA Conversion to Zero-Emission Buses

Important Information on Propane – Domestic, Clean, Reliable and Safe

There are several bills that have been introduced seeking to address Climate Change that focus on incentives for fuel-switching by mandating electrification as a solution to meet emissions goals for buildings and for cars and vehicles.

In the crush of hearings and debate, important information can pass by unnoticed. I don't want this critical information about propane gas to get lost in the shuffle. Please see the attached for facts about propane and its use.

Propane is considered one of the cleanest sources of energy and fuel and a powerful force for greenhouse gas reduction. Propane should not be eliminated from use in state fleets, county school buses, MTA bus fleets or new state buildings. Further, we urge that propane should be included in any incentive programs under consideration.

Thank you for your consideration. Please contact me if you have questions or require additional information (Ellen Valentino, 410-693-2226 or evalentino@ellenvalentino.com)

Today's Propane



NPGA

NATIONAL PROPANE GAS ASSOCIATION

www.NPGA.org



Domestic, Clean, Reliable, and Safe

For more than 100 years, propane has powered our lives. More than 5.5 million American homes rely on propane as their primary heating fuel. When all uses of propane are taken into account, propane is found in nearly 50 million American households, where it is used for primary or secondary space heating, cooking, clothes drying, or grilling.

Globally, propane is the third most prevalent vehicle fuel behind only gasoline and diesel. U.S. Department of Energy data reveals there are more propane vehicles operating in the United States than natural gas or electric vehicles.

The United States currently produces more propane than it consumes, with 75% of U.S. production coming from natural gas.



In 2013, American consumers, farms, businesses, and communities consumed 8.8 billion gallons of odorized propane.

(2013 Sales of Natural Gas Liquids and Liquefied Refinery Gases, American Petroleum Institute Study).

Propane is a low-carbon fuel source that produces fewer greenhouse gas emissions than many other energy options in a wide range of applications. Propane serves an important role in a low-carbon economy.

> Residential Space Heating

Approximately 5.5 million U.S. households rely on propane for home heating.

> Off-Road Applications

Propane cuts emissions by 19 percent compared with gasoline forklifts.

Propane-powered mowers emit 16 percent fewer emissions than gasoline versions.

> Agriculture

Propane-powered irrigation engines produce 11 percent fewer greenhouse gas emissions than diesel engines.

> Propane Autogas

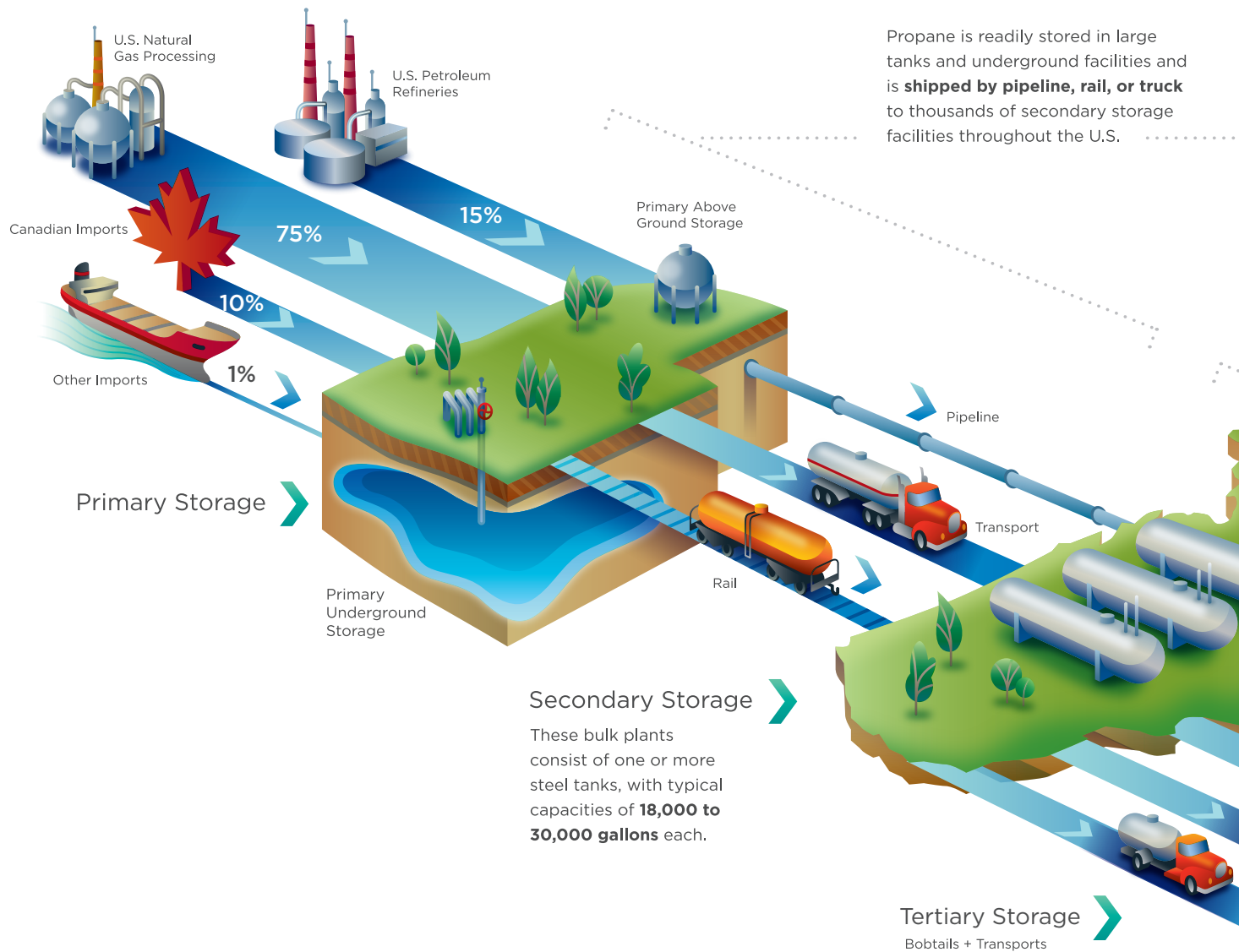
Propane-autogas-powered vehicles emit 11 percent fewer greenhouse gas emissions than gasoline vehicles throughout the vehicle life-cycle.



In Michigan, the Flint Mass Transit Authority transports 470,000 passengers annually in a fleet of 72 propane Ford shuttle vans, reducing 20,400 pounds of carbon dioxide per vehicle each year compared to a conventional vehicle — a savings of nearly 1.5 million pounds of carbon dioxide annually.

In Illinois, GO Airport Express anticipates a **reduction of 3.1 million pounds of carbon dioxide** over the operating lifetime of 30 propane Ford vans.

Delivering America's Fuel

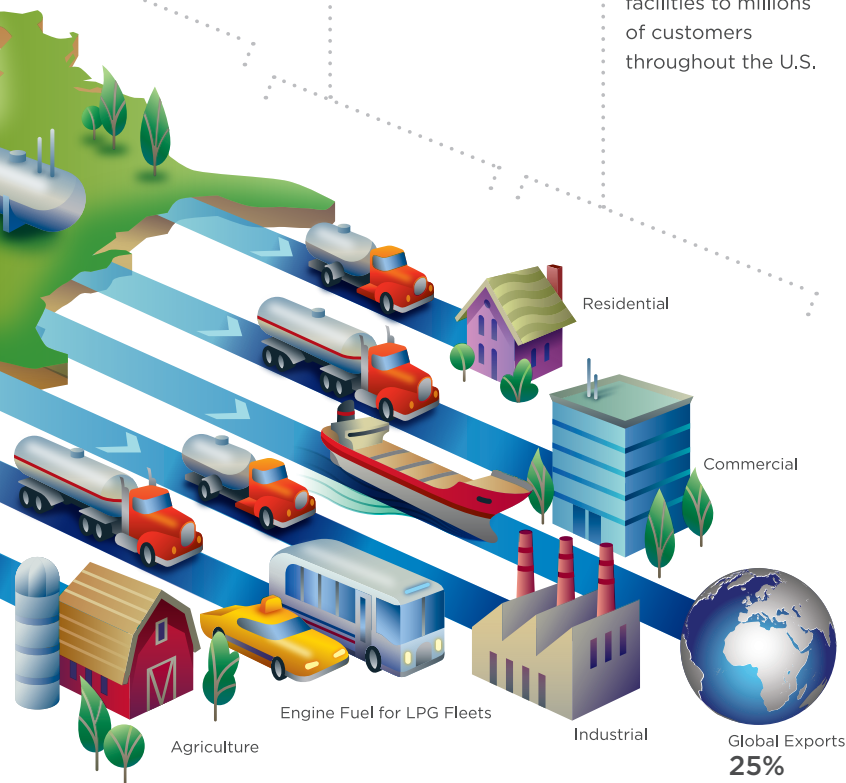


America produces **20% of the world's propane supply** and produces 15 billion gallons each year.



Tanks used in smaller bobtail delivery trucks and larger highway transport vehicles have capacities that range **from 3,000 – 12,000 gallons** and are built of thick, high-strength steel.

Propane is delivered from nearly 10,000 bulk plant storage facilities to millions of customers throughout the U.S.



Did You Know?

Propane is 270 times more compact as a liquid than as a gas, making it highly economical to store and transport.

Propane by the Numbers

Propane fuels our economy by



Contributing \$38.7 billion to America's GDP

Creating almost 50,000 domestic jobs

States with the highest propane usage in the U.S.

(2013 Sales of Natural Gas Liquids and Liquefied Refinery Gases, API Study)

Residential Sector	8.1% Michigan	5.8% Wisconsin	5.5% Illinois	4.6% California	4.4% Minnesota
Commercial Sector	5.4% California	5.1% Florida	5.0% Pennsylvania	4.9% Texas	4.7% Maine
Agricultural Sector	17.1% Iowa	11.6% Minnesota	7.9% Illinois	7.8% N. Carolina	5.2% California

Propane-powered irrigation engines can cost **up to \$4,000 less** to operate than diesel irrigation engines.



Propane Goes Beyond the Grill

Propane is an important part of America's changing energy landscape. As propane production continues to rise, there is more than enough supply to meet the America's energy demands.

Propane can be used practically anywhere. From emergency relief operations to isolated islands to ski resorts at high altitude — propane can quickly and reliably reach places other energies cannot.

- > Residential & commercial space heating and cooling
- > Residential & commercial water heating
- > Combined heat and power
- > On-site power generation
- > Generators
- > Irrigation engines
- > Mowers
- > Terminal tractors
- > Forklifts
- > School buses and shuttles
- > Bobtail trucks
- > Light-duty trucks
- > Utility cargo vans



Did You Know?

Propane powers appliances more efficiently than many other fuels, reducing overall energy costs.

Autogas



Did You Know?

A propane-powered mower can be used during ozone action days, while using gasoline and diesel powered versions are prohibited.

Propane autogas is the world's leading alternative fuel, and the third most common vehicle fuel in the U.S. Compared with other fuels, it also delivers superior performance for each dollar invested.

Propane vehicle fuel is generally cleaner than gasoline and diesel with reductions in major smog, ozone, and greenhouse gas pollutants, including carbon monoxide (CO), carbon dioxide (CO₂), non-methane hydrocarbon (NMHC), and particulate matter (PM₁₀) for most vehicle applications.

Increases in propane vehicle fuel use do not require new production, distribution, or storage infrastructure as an extensive propane supply chain already exists for residential and commercial customers.

Furthermore, almost 3,000 public propane fueling stations are available in the U.S.

The incremental cost of converting a vehicle to propane ranges from \$4,000 to \$14,000 per vehicle. Fueling infrastructure costs range from \$45,000 to \$300,000 for small to large fleets — well below the equivalent vehicle and infrastructure costs for compressed natural gas or liquefied natural gas.

There are about 150,000 propane-powered vehicles in the United States.

Real world example

The Sandy Springs, Georgia Police Department wanted to save money and reduce its environmental impact so it integrated propane vehicles into its fleet. The agency now operates 67 propane-powered vehicles and reported the displacement of about 167 tons of harmful greenhouse gas emissions and savings of more than \$200,000 in fuel costs in just two years. Police officers like driving the cruisers because propane is less flammable than gasoline and the tanks are 20 times more puncture-resistant.



The alternative fuel vehicle market can continue growing with consistent State and Federal policies.

Renew and Extend Tax Credits | The federal Alternative Fuel Tax Credit and the Alternative Fuel Infrastructure Tax Credit have driven propane fuel innovations, helped fleets reduce their initial capital expense, and supported year-round propane fuel use that helps balance the seasonality of propane demand. For the past several years, these federal tax credits have expired each year before being renewed by Congress. Continued investment from states and the federal government, including the extension of the federal Alternative Fuel and Infrastructure Tax Credits, will support the transition to propane and reduce American dependence on foreign oil.

Excise Tax Equalization | One gallon of propane contains 73 percent of the energy contained in one gallon of gasoline. In other words, it takes 1.37 gallons of propane to equal the energy value of one gallon of gasoline. However, both fuels are taxed at the same rate under current law. Because of this energy disparity, consumers pay more in taxes for propane autogas than for gasoline.

For example, a gasoline-powered truck using 20,000 gallons in a year would pay \$3,660 in federal excise taxes. To obtain the equivalent energy content of 20,000 gallons of gasoline, a propane-powered truck would require 27,400 gallons of propane, resulting in \$5,014 in federal excise taxes.



That's a 37 percent tax penalty to go the same distance and clean the environment. For business owners and policy makers, this math does not add up.

States are Adopting Propane Autogas

Thirty-two states have alternative fuel policies that fairly tax propane on an energy basis compared with gasoline and diesel. Twenty-seven states have tax incentives available for propane vehicles or fueling infrastructure, as well as rebates, grant funding, loans, and registration exemptions to encourage the deployment of propane vehicles and meet state emissions requirements.



A Safe Energy Choice

The propane industry's commitment to ongoing education, training, preventative maintenance, and safety awareness programs ensures that propane is a safe fuel to use at home and at work. A well-trained propane workforce is the foundation of the industry.

NPGA is an active participant in the committees of the National Fire Protection Association and International Codes Council, which develop the industry's safety codes and standards. Safety is the industry's highest priority, and below is a sampling of the types of programs and safety elements enacted by the propane industry.

The Certified Employee Training Program (CETP) assures that the industry's workers have the necessary knowledge and skills to perform their jobs safely and effectively. Recognized in twelve states to meet training requirements, used by propane marketers nationwide, and being continually updated and expanded, CETP has become the industry's flagship curriculum in propane workforce safety, training and certification.

The Propane Emergencies (PE) program is the benchmark by which many other hazardous materials training programs are measured. Since its inception in 1998, the program has grown from a single textbook to a comprehensive training program adopted by 27 state firefighter training agencies and propane marketers.

New propane cylinders include a device that shuts off the filling process when the tank reaches 80 percent of its liquid capacity. This safety feature ensures the cylinder is filled to the proper level.

Tanks on propane vehicles are constructed from carbon steel and are 20 times more puncture resistant than typical gasoline or diesel tanks. Propane engine fuel systems are fitted with safety devices and shut-off valves that function automatically in case of a fuel line rupture.

Tanks on propane vehicles are
20 times more puncture resistant
than typical gasoline or diesel tanks.



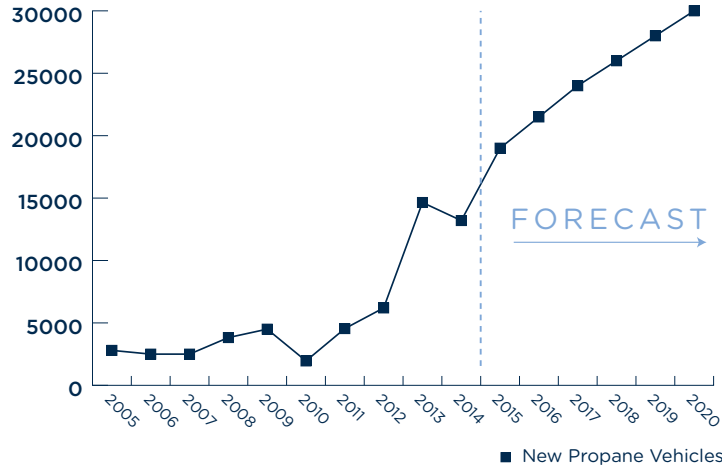
Future of Propane

Today, propane is produced in conjunction with domestic oil and gas drilling, as well as oil refining. About 75 percent of U.S. propane supply is produced in the U.S. in association with natural gas and liquids production. The remaining 25 percent is produced in U.S. refineries, or imported from Canada.

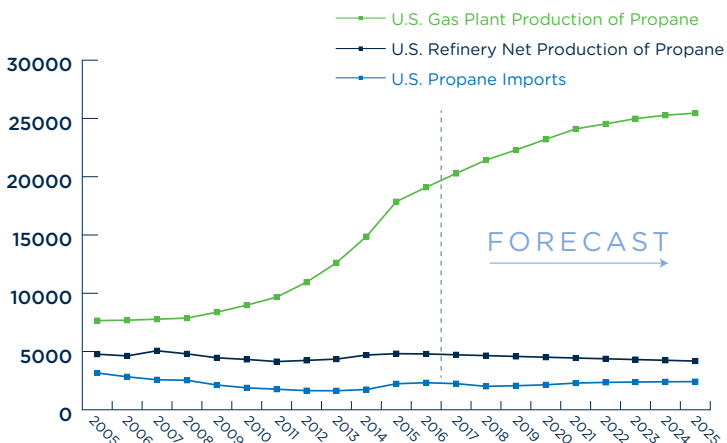
Since 2010, propane production has increased dramatically as part of the shale gas boom that has revolutionized U.S. natural gas and oil production. In 2014, over 19.3 billion gallons of propane were produced in the United States. The U.S. imports a relatively small amount of propane from Canada, as well as very small amounts of propane into the Northeastern U.S. on a seasonal basis. The U.S. became a net exporter of propane in 2011 when U.S. propane production exceeded consumer demand. Currently, the U.S. is the largest propane exporter in the world. U.S. exports are expected to continue to grow for the foreseeable future as the expected increase in production exceeds domestic demand growth.

Propane supply continues to grow.

NEW PROPANE VEHICLE SALES



PROPANE SUPPLY



Did You Know?

By 2020, propane production is expected to reach more than 27.7 billion gallons.

Propane Working for America

MADISON, WISCONSIN

The Badger Cab Company saves 50 to 75 percent in fuel costs with propane autogas. The on-site refueling infrastructure and availability of public fueling stations allows company to run fleet nearly 100 percent on propane.

MARIETTA, NEW YORK

Maple Lane Farms upgraded to a propane-powered grain dryer, allowing them to harvest earlier and take crops to market faster. Since making the switch, drying costs have decreased 38 percent per bushel.

PORTLAND, OREGON

The Portland Public Schools will save an estimated 50 percent for its propane autogas purchases compared with those for gasoline. PPS buses powered by propane run up to 30,000 miles longer than those fueled by gasoline.

DENVER, COLORADO

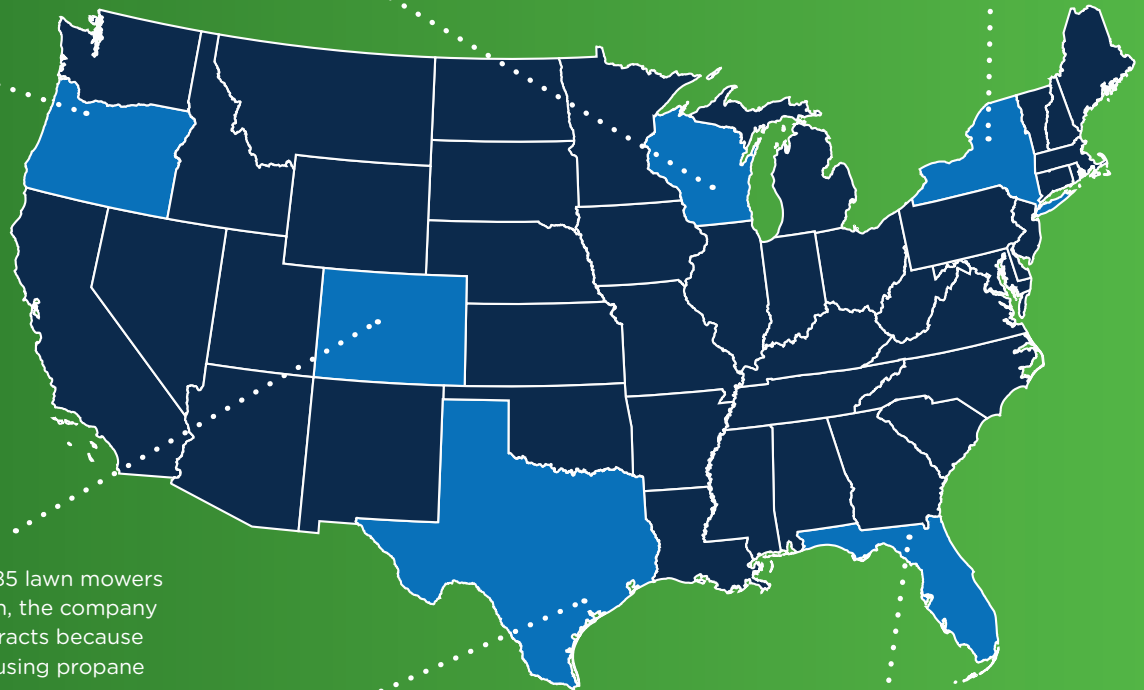
CoCal Landscape converted 85 lawn mowers to propane in 2012. Since then, the company has secured several new contracts because of environmental benefits of using propane instead of gasoline.

ALVIN, TEXAS

The Alvin Independent School District has been running propane buses for three decades. Today, the district transports about 8,000 students in more than 100 propane-powered buses. Bus refueling time has been cut in half following the installation of a high volume propane autogas pump.

LIVE OAK, FLORIDA

The Shenandoah Dairy milks approximately 3,300 cows a year. The Dairy's propane irrigation engine cost \$6,000 less than the same tier three-compliant diesel model, and will save the organization about \$10,000 a year in maintenance and refueling costs.



National Propane Gas Association
1899 L St. NW, Suite 350, Washington, DC 20036
240.466.7200 | info@npga.org | www.npga.org

 NPGAPropane  NPGA.Propane

 National Propane Gas Association

NPGA
NATIONAL PROPANE GAS ASSOCIATION

HB0583 _LOI

Uploaded by: W. McKittrick, James

Position: INFO



Larry Hogan, Governor
Boyd Rutherford, Lt. Governor
Jeannie Haddaway-Riccio, Secretary

January 28, 2021

The Honorable Kumar Barve
Chair, Environment and Transportation Committee
Room 251, House Office Building
Annapolis, MD 21401

The Honorable Dana Stein
Vice Chair, Environment and Transportation Committee
Room 251, House Office Building
Annapolis, MD 21401

Re: Letter of Information – House Bill 583 – Climate Solutions Now Act of 2021

Dear Chair, Vice Chair, and Committee Members,

The Maryland Department of Natural Resources is providing the following information on House Bill 583. Among a slew of other provisions, this bill creates a new State goal of planting and maintaining five million trees by 2030. The department's Chesapeake and Atlantic Coastal Bays Trust Fund will provide \$1.25 million annually for forestry staff and a program coordinator housed in the Maryland Department of the Environment (MDE). MDE's Bay Restoration Fund will also provide a total of just over \$5 million annually towards the new State goal, with \$2.5 million to the Maryland Department of Agriculture for enhanced signing bonuses under the Conservation Reserve Enhancement Program. A State plan for meeting the five million tree goal will be created by the new Commission for the Innovation and Advancement of Carbon Markets, with their plan due by October 2022.

Currently, Maryland is committed to participating in two different watershed-wide tree planting goals of 900 miles per year of riparian forest buffers and 2,400 acres of urban tree canopy through the 2014 Chesapeake Bay Watershed Agreement. Additionally, meeting our larger Chesapeake Bay restoration and greenhouse gas reduction goals involve a wide array of tree planting practices. The Chesapeake Bay Program currently recognizes and tracks ten different tree planting best management practices all with different units of measure. It is challenging enough to meet and track the crowded field of existing goals. **Adding another large-scale goal will have the result of confusing and hindering Maryland's continuing tree planting and maintenance progress.**

The scientific basis for selecting a goal of an additional five million trees is unclear. Given this number is surely arbitrary, **HB 583 risks misallocating funds that could otherwise be better spent cleaning up the Chesapeake Bay.** Planting any tree is helpful, but not all trees planted in all locations are of equal value. The Chesapeake Bay Program's tree planting Best Management Practices have undergone extensive technical review to identify their nutrient and sediment reduction benefits. While the state could conceivably plant five million trees, doing so randomly just to achieve a number goal would undoubtedly have less restoration benefits than strategically planting fewer trees in key areas and following approved Best Management Practices.

Other concerns around ***HB 583's misallocation of limited Chesapeake Bay restoration resources include the raiding MDE's Bay Restoration Fund and DNR's Chesapeake and Atlantic Coastal Bays Trust Fund.*** While MDE's Bay Restoration Fund has met its primary intended purpose of upgrading the major wastewater treatment plants the redistribution of its monies needs to be carefully considered and should allow for the "most bang for the buck" in Bay clean-up. This is especially true given the number of large legislative initiatives in the 2021 Legislative Session that -- whether right or wrong -- see these dollars as free money for pet causes. HB 583 should ensure that enough funding remains in the Bay Restoration Fund to meet our remaining Phase III Watershed Implementation Plan commitments on wastewater treatment plant performance. In the same vein, HB 583 appears to divert \$1.25 million annually from the Chesapeake and Atlantic Coastal Bays Trust Fund. In prior years, the General Assembly has backed the department to prevent raids on the fund because, by law, each dollar spent by the Chesapeake and Atlantic Coastal Bays Trust Fund must meet the greatest nutrient reduction possible.

It is entirely possible that ***the goal of planting 5 million trees on top of the department's efforts under the Greenhouse Gas Emissions Reduction Plan for approximately 9 million trees is not physically achievable*** given HB 583 parameters and the realities of tree planting in Maryland. The land area required to plant this many trees -- approximately 10,000 acres at typical tree planting densities -- is simply huge and must be done on private land where opportunities exist. HB 583 specifically states trees planted under this initiative are not to be harvested, and private landowners have to sign a legal agreement they will maintain the area in trees for 15 years. These restrictions and the lack of incentives (*see the Maryland Department of Agriculture's Letter of Information*) provided in the bill will result in very few landowners willing to participate. As a result, the State would need to purchase land just to plant trees at costs not even close to being covered in the legislation.

Thank you for allowing the department to submit this information on HB 583 for the committee's careful consideration.

Respectfully submitted,

James W. McKitrick
Director, Legislative and Constituent Services

HB0583 - OPCP - OEP - Climate Solutions Now Act of

Uploaded by: Westervelt, Patricia

Position: INFO

February 11, 2021

The Honorable Kumar P. Barve
Chair, House Environment and Transportation Committee
Room 251, House Office Building
Annapolis, Maryland 21401

Re: Letter of Information – House Bill 583 – Climate Solutions Now Act of 2021

Dear Chairman Barve and Committee Members:

The Maryland Department of Transportation (MDOT) offers the following letter of information for the Committee's consideration on House Bill 583 due to its far-reaching impacts on numerous aspects of Maryland's transportation network.

House Bill 583 requires the State to reduce statewide greenhouse gas emissions (GHG) by 60% from 2006 levels by 2030 and requires the State to achieve net-zero statewide GHG emissions by 2045. Among numerous other provisions, the bill requires the State to begin transitioning its light duty vehicle (LDV) fleet to zero emission vehicles (ZEV). The State would also be required to develop a schedule and process for converting the State's transit bus fleet to ZEV and could not purchase non-ZEV Transit Buses beginning in FY 2023.

It is important to note that the Maryland Commission on Climate Change (MCCC) has spent significant time and resources over the past two years (2019-2020) working closely with the Maryland Department of the Environment (MDE), other State agencies, and numerous stakeholders, on analyzing and understanding climate change mitigation in Maryland. The MCCC has determined that an appropriate and aggressive target for 2030 emission reductions would be a 50% reduction from 2006 levels. This exceeds the current goal of 40% reduction required under the existing Greenhouse Gas Reduction Act (GGRA) and is based on the most recent data and analyses, including economic impacts, available in Maryland and region wide.

Planning is underway within MDOT to address electrification of MDOT's fleet, including its LDVs and its medium and heavy-duty vehicles supporting operations in all MDOT Transportation Business Units (TBUs). MDOT is also in close coordination with the Department of General Services (DGS) on DGS's Electrification Infrastructure Strategy. A comprehensive strategy for installing charging infrastructure is required to support electrification of the State's fleet of vehicles. Today, most deployments of ZEV transit buses across the United States are via pilot projects, and the transition to a fully zero-emission fleet is highly dependent on

continued advancement of technology. Transitioning the MDOT Maryland Transit Administration bus fleet would require significant service changes to match the capabilities of current ZEV transit buses in production. In addition, zero-emission bus conversion will require a heavy investment in charging and maintenance infrastructure and in workforce training. Furthermore, the legislation does not exclude Mobility vehicles from the zero-emission requirements; zero-emission buses are not yet readily available from manufacturers for these vehicle types.

It is also critical to remain flexible when considering future transportation funding options. While we appreciate the focus on the Maryland Transportation Trust Fund (TTF), we would not suggest limiting the funding to only the TTF as that may limit opportunities for Maryland to take advantage of potential future funding sources. These sources could include private grants, federal incentives, and other opportunities which could be instrumental in helping Maryland succeed in our ambitious GHG reduction and clean transportation goals. Along the same lines, prohibitions on particular GHG emission reduction measures, such as widening, can have unintended consequences throughout the transportation system. These kinds of limitations may result in the development of significant barriers and impacts to our most vulnerable populations and communities and impede Maryland's ability to reach our targets.

The Maryland Department of Transportation respectfully requests the Committee carefully consider this information when deliberating House Bill 583.

Respectfully submitted,

Heather Murphy
Director of Planning and Capital Programming
Maryland Department of Transportation
410-865-1275

Melissa Einhorn
State Legislative Officer
Maryland Department of Transportation
410-865-1102

HB 583 Climate Solutions Now Act (Stein) E&T 2.11.

Uploaded by: Wilkins, Barbara

Position: INFO



Maryland

DEPARTMENT OF BUDGET
AND MANAGEMENT

LARRY HOGAN
Governor

BOYD K. RUTHERFORD
Lieutenant Governor

DAVID R. BRINKLEY
Secretary

MARC L. NICOLE
Deputy Secretary

HOUSE BILL 583 Climate Solutions Now Act of 2021 (Stein)

STATEMENT OF INFORMATION

DATE: February 11, 2021

COMMITTEE: House Environment & Transportation

SUMMARY OF BILL: HB 583 requires the State to reduce statewide greenhouse gas emissions by 60% by 2030 (from 2006 levels) and net-zero emissions by 2045; requires the Department of Labor to adopt new energy conservation requirements for buildings and expands and alters the applicability of “high-performance building” standards; establishes State tree-planting goals; and increases and extends energy efficiency and conservation program requirements administered by the Public Service Commission.

The bill establishes the intent of the General Assembly that 100% of light-duty vehicles in the State vehicle fleet be zero-emission vehicles by 2030. The State must ensure that, subject to the availability of funding, (1) beginning fiscal 2025 at least 50% of the light-duty vehicles purchased for the State vehicle fleet are zero-emission vehicles and (2) beginning in fiscal 2030, 100% of the light-duty vehicles purchased for the State vehicle fleet are zero-emission vehicles. These requirements do not apply to the purchase of vehicles that have special performance requirements, as specified.

EXPLANATION: The Department of Budget and Management (DBM) is charged with administering the State vehicle fleet and is responsible for developing vehicle contract specifications for presentation to the Board of Public Works for final approval. All fleets within the Executive branch are required to adhere to policies and procedures established by the State vehicle fleet office. The standards developed by DBM must, as far as practicable and feasible, be based on the lowest possible life-cycle cost of the vehicle.

In FY 2020, DBM utilized \$2.5 million in SEIF funds to purchase 74 vehicles eligible for replacement, which added 69 plug-in hybrid vehicles and five fully electric vehicles. DBM has adjusted and expanded the statewide vehicle specifications to include all available ZEVs to provide greater integration into the State fleet. Any vehicle purchase that is not a ZEV must be accompanied with a justification as to why the purchase is not a ZEV.

In general, the State purchases an average of 400-600 vehicles annually, with approximately 4,100 vehicles meeting the light duty definition of this bill. The added cost per vehicle to comply with this bill is approximately \$3,000-\$5,000, therefore, costing an average of an additional \$1 million beginning in

FY 2025 when the requirement is 50% of new vehicles purchased by the State and \$2 million in FY 2030 when 100% of new vehicles purchased by the State would be zero-emission vehicles, as required by the legislation.

While it is clear the impetus for this bill is to reduce the environmental impact of conducting State business and related activities, any requirement for the ultimate full inclusion of ZEV must address the following:

Fiscal Sustainability. ZEVs are more costly to purchase than their combustion engine counterparts and require significant monetary investment in charging infrastructure throughout the State. The technology of charging infrastructure is developing rapidly and a significant investment in the current industry standard of Level 2 charging will likely need to be modified in the near future as Level 3 charging will soon be the standard bearer. Level 3 charging technology is more efficient and less time consuming. Vehicle manufacturers are advancing the capability of vehicle batteries that can sustain Level 3 charging yearly.

Disruption to State Employee Mobility and Job Performance. The limited current availability of charging stations for State government use creates a hindrance to employees assigned ZEVs. The smaller of these vehicles are rated to roughly 250 miles of range; however, this is only under ideal usage conditions. Ideal usage conditions does not include the use of air conditioning, heating, radios, lights, or other accessories. Using such equipment reduces range significantly and requires more frequent charging. At Level 2, a minimum of 3-4 hours would be necessary to achieve a “half” charge of the vehicle’s batteries. State employees are not afforded 3-4 hours of potential downtime on a regular and continuing basis.

Limited Zero-Emission Vehicle Availability. Foreign and luxury vehicle manufacturers are introducing and have introduced a far greater array of ZEVs, to include sedans, vans and mid-size SUVs. However, domestic vehicle manufacturers are producing less variety. This is significant, as State procurement regulations require vehicle purchase contracts to be awarded to the lowest bids(s), which effectively removes the foreign and luxury manufacturers from the process and, consequently, the variety of light duty vehicles required for the State fleet, i.e. pickup trucks, cargo vans, mid-size and large SUVs.

To impose a 100%, or even 50%, ZEV purchase mandate in the 3-5 years presents challenges that appear to be insurmountable, as there is not the variety of these vehicles available on State contracts to satisfy the many and varied jobs performed by State employees. A delayed and extended timeline for implementation, with more gradual percentage increases should allow for the State to establish firm footing regarding charging infrastructure, as well as allowing domestic vehicle manufacturers the opportunity to increase their ZEV offerings.

For the foreseeable future, ZEVs vehicles should play an ever increasing role in reducing the environmental footprint of our fleet, but should not be considered as the only solution because of the inherent limitations that currently exist.

**For additional information, contact Barbara Wilkins at
(410) 260-6371 or barbara.wilkins1@maryland.gov**