

SB0900 Carbotech Toll FAV.pdf

Uploaded by: Brian Toll

Position: FAV



CARBON TECHNOLOGY
INSTITUTE

March 14, 2023

Senator Guy Guzzone
Chair, Budget and Taxation Committee
3 West
Miller Senate Office Building
Annapolis, MD 21401

Dear Senator Guzzone:

I am writing to request your favorable support for SB0900 “Maryland Clean Energy Center - Climate Technology Founder's Fund - Establishment.”

I am Managing Director of Carbon Technology Institute (www.carbontech.org), a consulting firm located in Bethesda, Maryland that assists Maryland-based startups with technology commercialization. The Maryland Clean Energy Center operates a program called the Maryland Energy Innovation Accelerator (MEIA). CTI currently supports the MEIA in a consulting capacity.

The MEIA program accelerates the commercialization of new clean energy and climate technologies created in Maryland-based businesses, universities, and laboratories with the goal of creating new Maryland-based technology and manufacturing businesses.

When a business graduates from a MEIA program, it has immediate needs for non-restricted capital. The MCEC Climate Technology Founder’s Fund, which requires a one-to-one match, will invest non-restricted capital into MEIA graduates for such uses as: to assist with starting operations, to secure patent rights, to cover fundraising costs, and other uses. A small, strategic investment, made quickly and at the right time, will make a huge difference towards enabling MEIA graduates to obtain both non-dilutive (SBIR) and dilutive (venture) capital, and help Maryland attain our climate and economic development goals.

This legislation provides baseline funding for the Climate Technology Founder’s Fund administered by the Maryland Clean Energy Center. **Your consideration and favorable support of SB0900 will be much appreciated.**

Sincerely,

Brian Toll
Managing Director
brian@carbontech.org

B&T_ SB0900_FAV_MCEC_Kathy Magruder_2023_03_15.pdf

Uploaded by: Katherine Magruder

Position: FAV



I. Katherine Magruder
Executive Director
ikm@mdcleanenergy.org
301-314-6061

Maryland Clean Energy Center (MCEC) was created as a not-for-profit corporate instrumentality of state in 2008 through an act of the Maryland General Assembly.

MCEC focuses on an economic development mission to advance the adoption of clean energy and energy efficiency products, services and technologies with associated jobs, wages and tax revenue for Maryland. MCEC leverages private capital and private sector capabilities; facilitates the commercialization of innovative advanced energy technologies; implements climate justice initiatives, strives to reduce energy costs for consumers, and drives reductions in greenhouse gas emissions associated with the use of fossil fuels.

SB 900 - Maryland Clean Energy Center – Climate Technology Founder’s Fund

Hearing Dates: 3.15.2023 Senate Budget & Taxation Committee

Recommendation: FAVORABLE REPORT

Research and development focused on climate adaptation and impact mitigation has the potential to significantly benefit our state economically and environmentally. Investing in the growth of early stage start-up companies will allow the state to lead the world in bringing solutions to the marketplace.

In terms of successful economic development strategies, Maryland has a history of leveraging the technological advances achieved at the numerous, highly regarded, top notch research institutions and federal labs located within the state for wealth and job creation. In the past, the state facilitated the transfer of cutting-edge technology and incubated industries like aerospace engineering, IT and biotechnology; which evolved into global economic industry powerhouses and major employers.

Science that seeks to help society adapt to and mitigate the impact of climate change happening here today is the seed for ideas are now becoming the new products, services and technologies driving the global economy. Maryland is once again well positioned to harvest the benefits.

SB 900 proposes to provide funding to act as an accelerant to ignite early-stage private capital investment, and fill a gap in the tech commercialization eco-system which has proven to be a significant hurdle for entrepreneurs trying to nurture a new company. With this small investment, start-ups forming the Climate Tech economy will have even better chance of surviving the commercialization valley of death and achieving the promise of a brighter economic future for Maryland

The Maryland Clean Energy Center, in partnership with the Maryland Energy Innovation Institute, is already working at the earliest stages of climate and clean energy related tech transfer. With the creation of the Maryland Energy Innovation Accelerator in 2019, Maryland began to focus on building the climate tech eco-system, support successful company formation, and pull the related technological discoveries to market faster. This work wraps executive expertise around a technology to help identify potential market applications, create pathways to market, and provide the business acumen needed to attract private investment capital for a company to ultimately succeed.

MCEC urges your favorable support of SB900 and thanks Chairman Feldman for his leadership in sponsoring this legislation.

SB 900_CBF_FAV.pdf

Uploaded by: Matt Stegman

Position: FAV



CHESAPEAKE BAY FOUNDATION

*Environmental Protection and Restoration
Environmental Education*

Senate Bill 900

Maryland Clean Energy Center - Climate Technology Founder's Fund – Establishment

Date: March 15, 2023

To: Budget & Taxation Committee

Position: **SUPPORT**

From: Matt Stegman,
Maryland Staff Attorney

Chesapeake Bay Foundation (CBF) **SUPPORTS** SB 900 which creates the Climate Technology Founder's Fund within the Maryland Clean Energy Center. This fund will be used to provide early-stage funding for new companies focused on developing technologies that mitigate the impacts of climate change.

Climate change is affecting the Chesapeake Bay and rivers and streams across the watershed—adding more stress to a system still out of balance. Water and air temperatures are increasing, putting both wildlife and people at risk of dangerous heat and worsening the Bay's low-oxygen dead zone. Sea levels are rising at a rate nearly twice the global historic average, causing damage to habitat and property. And record-breaking storms are becoming more common, washing more pollution into rivers and the Bay.

The urgency of our climate situation requires an “all hands on deck” approach that includes investment and innovation from both the public and private sectors. SB 900 will provide a source of state investment to help foster private innovation in the field of climate technology.

CBF urges the Committee's FAVORABLE report on SB 900.

For more information, please contact Matt Stegman, Maryland Staff Attorney, at mstegman@cbf.org.

Maryland Office • Philip Merrill Environmental Center • 6 Herndon Avenue • Annapolis • Maryland • 21403

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

SB0900_CarbonLockdown.pdf

Uploaded by: Ning Zeng

Position: FAV



Carbon Lockdown Project Benefit LLC

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Silver Spring, MD 20910, USA
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<http://carbonlockdown.net>

March 14, 2023

Senator Guy Guzzone
Chair, Budget and Taxation Committee
3 West, Miller Senate Office Building
Annapolis, MD 21401

Dear Senator Guzzone:

I am writing to request your favorable support for SB 0900 “Maryland Clean Energy Center - Climate Technology Founder's Fund - Establishment.”

I am the founder and CEO of Carbon Lockdown Project Benefit LLC (CLP), a university technology spinoff company operating in College Park and Silver Spring, Maryland. Our mission at CLP is to develop and support reliable carbon sequestration technologies that benefit climate and sustainability. In particular, we specialize in Wood Harvesting and Storage with Wood Vault, a technology that combines multiple benefits of waste utilization, carbon sequestration, conservation and green job creation.

The Maryland Clean Energy Center operates a program called the Maryland Energy Innovation Accelerator (MEIA). CLP has been supported by MEIA from conception to the implementation of our current Potomac Project, the very first in the world.

This legislation provides baseline funding for the Climate Technology Founder’s Fund administered by the Maryland Clean Energy Center. Your consideration and favorable support of SB 0900 will be much appreciated.

Please don’t hesitate to let me know if I can be of further assistance.

Sincerely,

Ning Zeng
Founder and CEO
Carbon Lockdown Project Benefit LLC

SB900 Support Letter HighT-Tech 14 March 2023.pdf

Uploaded by: Robert Gatte

Position: FAV



4467 Technology Drive, #3104
College Park, MD 20742
Email: contact@hight-tech.com

Senator Guy Guzzone
Chair, Budget and Taxation Committee
3 West
Miller Senate Office Building
Annapolis, MD 21401

Dear Senator Guzzone:

On behalf of my company, HighT-Tech, Inc., thank you for the opportunity to provide written testimony on SB 900, the creation of the MCEC Founders Fund.

After a 30-year career with W. R. Grace & Co. in Columbia, MD, holding positions as General Manager of their global refining catalyst business and as Chief Technologist, I was introduced to MEIA through their EEIR program. I agreed to mentor one of their start-up companies, HighT-Tech, which spun out from the University of Maryland, College Park, and John's Hopkins University.

As I became more involved with the founders and developed a better appreciation for the opportunities provided by the core HTT technology, I decided to become more directly involved in helping this team create a successful company. In February of 2021, I signed on as CEO of HighT-Tech. MEIA's *try before you buy* approach provided me the time and the structured interactions to get to know the technology, to work on its commercialization plan, and to get to know the founders on a deeper level. After 2 years of technical progress, made possible by the support of MEIA and several ARPA-E federal grants, we are beginning the process of securing much needed outside equity investments.

The MCEC Founder's Fund will invest in Maryland's climate tech innovation companies like ours with a one-to-one match to fill gaps in the de-risking of products and the improvements of existing climate tech patents. These small, strategic investments, at the right time, will move our climate tech companies through the typical *valley of death* stages of startup enterprises, one step closer to traditional equity investment, and will help Maryland attain our climate goals.

HighT-Tech urges your favorable support of SB900.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Gatte', with a long horizontal flourish extending to the right.

Dr. Robert Gatte
CEO, HighT-Tech Inc.
+1-443-280-3779
bob.gatte@hight-tech.com

SE Climate Technology Founders Fund LOS.pdf

Uploaded by: Sarah Peters

Position: FAV

Bill: SB 900/HB 911- MD Clean Energy Center- Climate Technology Founder's Fund- Establishment

Position: SUPPORT

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

On behalf of Schneider Electric, a multinational company specializing in digital automation and energy management, we respectfully request your support for SB 900/HB 911.

Schneider's purpose is to empower all to make the most of our energy and resources, bridging progress and sustainability for all. We believe access to energy and digital is a basic human right. Our generation is facing a tectonic shift in energy transition and industrial revolution catalyzed by accelerated digitization in a more electric world. Electricity is the most efficient and best vector for decarbonization; combined with circular economy approach, we will achieve climate-positive impact as part of the United Nations Sustainable Development Goals.

Schneider values emerging technologies and has made 26 acquisitions and nine investments as of February 2023. We understand the value that investing in new and emerging climate technologies has on our communities and planet. That is why we support the establishment of the Climate Technology Founder's Fund for startup companies focused on climate technologies.

For these reasons, Schneider Electric supports SB 900/HB 911.

Should you have any questions, please feel free to contact me at amanda.corrado@se.com or our government relations consultant, Sarah Peters, at speters@hbstrategies.us. We appreciate your support.

Respectfully submitted,



Amanda Corrado
Government Relations Advisor

APP_SB0900_FAV_BRIGHTWAVE_TIMSHAW_3152023.pdf

Uploaded by: Timothy Shaw

Position: FAV



March 14, 2023

Senator Guy Guzzone
Chair, Budget & Taxation Committee
3 West
Miller Senate Office Building
Annapolis, MD 21401

Re: Written Testimony Submission Regarding SB900/HB911

Dear Senator Guzzone,

I am submitting this testimony in support of SB900/HB911, Maryland Clean Energy Center – Founders Fund - Establishment.

My name is Timothy Shaw. I am a resident of Clarksville, MD (district 13). My startup business, BrightWave Partners LLC (“BrightWave”) is also based in district 13.

BrightWave (www.brightwavellc.com) has developed and patented a disruptive technology to produce algae biomass, indoors and at industrial scale. Algae biomass is a versatile and renewable feedstock with valuable applications across multiple industries.

Our cultivation platform enables manufacturers to scale the on-site production of a high-quality bio-feedstock. Growing algae, and using it in products to replace petroleum-derived components, reduces carbon dioxide emissions and mitigates the impact of climate change. Our technology can be a key driver in helping manufacturers – of almost any product – decarbonize their operations.

Additionally, algae is an excellent source of protein and nutrition, and our systems provide unprecedented efficiencies and cost savings for food production.



BrightWave is three years old, and we are attracting clients from industries as diverse as Food, Aquaculture, Cement and Pharma. We feel as though we have an incredible future ahead of us, but we need investment to scale growth.

As BrightWave advances through the MEIA program, we have started the process of securing critical capital investments. The MCEC Founders Fund would be invaluable in helping us attract investors and accelerate getting our products to market. The quicker we get to market, the quicker we can bring revenue into our company and into Maryland.

Approving this bill does not just provide direct support for companies like mine. It also supports the network of other Maryland-based companies and organizations that we support with our business – design and manufacturing partners, paid employees, and even the University of Maryland.

Again, I urge your favorable support of SB900/HB911.

Thank you for your time and consideration.

Timothy L. Shaw
Partner & Co-founder
BrightWave
tshaw@brightwavellc.com

SB 900_Favorable Testimoy_Wade Haerle_MEIA_Budget

Uploaded by: Wade Haerle

Position: FAV



Wade A, Haerle
Director
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443.294.5131

Maryland Clean Energy Center (MCEC) was created as a not-for-profit corporate instrumentality of state in 2008 through an act of the Maryland General Assembly.

*In 2019, MCEC launched the "Maryland Energy Innovation Accelerator (MEIA)," a **venture development program** that focuses on commercialization of climate-focused IP developed at Maryland-based universities, laboratories, and companies. MEIA is funded through Maryland's Strategic Energy Investment Fund, the US Economic Development Administration Build to Scale Program, and Corporate Sponsorships.*

HB 911/ SB 900- Maryland Clean Energy Center – Climate Technology Founder's Fund

Hearing Dates: 3.15.2023 Senate Budget and Taxation Committee
Recommendation: FAVORABLE REPORT

MEIA's primary objective is to facilitate the formation of higher quality entrepreneurial teams that will create and accelerate investible Maryland-based advanced energy businesses. MEIA teams develop a business model canvas and pitch deck. We have discovered a gap between the graduation of MEIA companies and the final preparation to create an investable company. This gap can be filled by the creation of the MCEC Founder's Fund.

The first investments in MEIA companies are not traditional equity investments like those made by TEDCO. The first investments, over \$22 million since 2019, are in the form of non-diluted federal grants like ARPA-e, the Small Business Innovation Research (SBIR) and the Small Business Technology Transfer (STTR) programs which de-risk an innovative climate tech product.

These Federal Grants are extremely helpful but do not cover certain cost like the improvement of patents, the creation of an executive team, or the establishment of a manufacturing space. All of which are needed to secure future equity investments.

The Founder's Fund will invest in Maryland's climate tech innovation companies with a one-to one match to fill this funding gap. These strategic investments, at the right time, will move our climate tech companies one step closer to a traditional equity investment.

The capital gains estimate for MCEC and MEIA are projections, and the timing of return on investment is over multiple years. Our best-case revenue estimate is based on 9 total investments of \$50,000:

- Five companies will not have any or little gains based on liquidity events. MCEC receives no return of capital, equating to a loss of \$200,000.
- Two companies return original investment to MCEC for a return of capital of \$100,000.

- One company completes a successful seed round and returns to MCEC 3 times a return on capital of \$150,000.
- One highly successful company returns 15 times the original MCEC investment in 8 years for \$750,000.

A realistic capital gain estimate is to double the return of the original \$500,000 over 5 to 8 years based on MCEC investment. The Founders Fund will require a one-to-one match at a minimum for each MCEC investment. MEIA will seek other opportunities to raise funds for the MCEC Founders Fund.

MEIA urges your favorable support of HB911/ SB900 and thanks, Chairman Barve, Delegates Vogel and Qi for their leadership in sponsoring this legislation.

FWA_SB900-HB911.v1.pdf

Uploaded by: Alex Pavlak

Position: FWA

Founders Fund Amendments

1 - EXPLICITLY ADD THE FOLLOWING TO CLIMATE CHANGE TECHNOLOGIES

NEW NUCLEAR TECHNOLOGIES

2 - REBRAND MCEC CHARTER TO EXPLICITLY INCLUDE NEW NUCLEAR TECHNOLOGIES

Reference: [Zero Carbon PJM Options](#)

Dr. Alex Pavlak is a Professional Engineer who has led the successful development of major new military systems. In a former life he was the President of a solar collector development company. Today he is the Chairman of the [Future of Energy Initiative](#). He is a former MCEC board member and a current member of the MEIA advisory committee. His advocacy is to engineer effective zero carbon systems.



SB0900(HB0911) - UNF - Maryland Clean Energy Cente

Uploaded by: Landon Fahrig

Position: UNF



Maryland Energy Administration

TO: Members, Senate Budget & Taxation Committee
FROM: Paul Pinsky Director, MEA
SUBJECT: SB 900 - Maryland Clean Energy Center - Climate Technology Founder's Fund -
Establishment
DATE: March 15, 2023

MEA Position: UNF

House Bill 911 establishes a new Special Fund to support activities within the Maryland Clean Energy Center (MCEC), and requires an annual appropriation of \$500,000.

The Maryland Energy Administration (MEA) sees the need for investment in economic development as it relates to the energy sector. **MEA has been, and will continue to be, one of the strongest supporters of MCEC's mission;** namely, encouraging development of advanced clean energy industries and clean energy innovation industries in the State, and helping retain and attract business activity and commerce within the energy space.

MEA has provided significant funding to the instrumentality, and is already committed to continuing to do so in perpetuity by statute. However, the timing of this bill may not be appropriate. The Climate Solutions Now Act of 2022 provided the instrumentality with \$15,000,000 in guaranteed funding over the course of three (3) fiscal years to establish a ClimateCatalytic Capital Fund and to begin administering programs consistent with its mission. MCEC has not yet had the opportunity to do so, and the instrumentality does have limited human resources.

MEA is happy to continue working cooperatively with MCEC, and to continue to foster future success, but questions the timing of this initiative, and the possibility it may detract from the pathways established in Climate Solutions Now. Also noteworthy is that there is an opportunity cost associated with the bill. New, mandated expenditures from the Strategic Energy Investment Fund (SEIF) administered by MEA will displace existing, well established, and successful energy programs.

For these reasons, MEA urges the Committee to render an **UNFAVORABLE** report.