

Honorable Council Members,

Montgomery County has long been a leader in technology, sustainability, and economic development; and today presents an opportunity to build on that legacy and to transform the challenge of the incinerator into a **national model for waste-to-value**.

This initiative involves more than replacing an incinerator. It's about **building an advanced biotech hub** that converts waste into clean energy, advanced materials, and biomedicines, all without combustion while **generating high-paying jobs and long-term economic growth**.

Innovation clusters like **North Carolina's Research Triangle, Boston's Kendall Square, and San Diego's Biotech Corridor** all began as targeted R&D initiatives backed by public-private collaboration. Today, those regions **each generate billions of dollars in GDP, attract top talent, and anchor global industry and investment**. Montgomery County has an opportunity to **do the same for waste-to-value**, ensuring that the economic and environmental benefits stay **right here, supporting Maryland businesses, researchers, and workers**.

Over the past several months, I have engaged with county leadership, DEP officials, and economic development experts, all of whom have provided valuable guidance on structuring an approach that aligns with Montgomery County's priorities. Through mentorship at **Bethesda Green**, I have worked to refine this initiative and explore how it can integrate into the county's existing climate and economic development goals.

Unlike traditional infrastructure projects, this **R&D-backed approach scales in parallel with existing operations. This is not about delaying action—it's about ensuring that every dollar spent today builds a foundation for long-term success**. The system of technologies is not speculative—it is already being commercialized across different sectors. **Montgomery County can pilot these solutions within the existing development framework of the incinerator**, integrating into current county initiatives like composting, methane-to-fuel-cell projects, and energy resilience strategies.

Procurement flexibility under **COMCOR 11B-4(f)** allows Montgomery County to explore an **R&D-driven strategy** alongside traditional procurement methods. Establishing a clear framework for collaboration would ensure that the county **retains control over the long-term economic benefits** while leveraging public and private funding sources—similar to the investments supporting Morgan State's climate research initiatives.

To continue our momentum, I urge and welcome the opportunity to host a meeting at **Bethesda Green**, in collaboration with DEP leadership, the Chief Administrative Officer, and the County Executive's Office, to align on a strategy that:

- ✓ **Keeps Montgomery County at the forefront of the waste-to-value industry**
- ✓ **Creates a regenerative, zero-waste economic and ecologic model through commercialization**

One that:

- ✓ **Aligns with existing county-funded biotech and clean energy priorities**
- ✓ **Attracts new investment, research talent, and industry partners**

Montgomery County has the opportunity to **lead the nation** in transforming waste into energy, advanced materials, and biomanufacturing. I look forward to continuing this conversation and working together to maximize this opportunity for our county and its residents. **Thank you for your time and leadership.**



November 21, 2024

Re: Letter of Support for Avos BioEnergy's Reimagine Dickerson Initiative

Dear Grant Review Committee:

As CEO of IndyGeneUS Bio, a Google for Startups portfolio company and leader in blockchain technology and data analytics, I am writing to express our strong support for Avos BioEnergy's Reimagine Dickerson initiative. Our company's expertise in secure data management and verification systems positions us uniquely to support this transformative project's monitoring, reporting, and verification (MRV) requirements for environmental impacts and carbon credits.

The Reimagine Dickerson initiative represents a crucial opportunity to demonstrate how advanced data analytics and blockchain technology can ensure transparency and accountability in environmental projects. Through our proprietary blockchain platform and experience with Google Cloud, BigQuery, and DeepMind Analytics, IndyGeneUS Bio will provide the secure, verifiable tracking system necessary for documenting the project's impressive reduction in greenhouse gas emissions and other environmental benefits.

Our commitment to this project stems from recognizing the critical intersection of environmental sustainability and data integrity. Just as IndyGeneUS Bio has established itself as a trusted partner in managing sensitive genomic data through secure blockchain solutions, we will bring this same level of rigor and innovation to environmental impact verification at the Dickerson site. Our decentralized databank encryption platform will ensure that every metric ton of carbon reduction is accurately tracked, verified, and securely recorded.

The partnership between IndyGeneUS Bio and Avos BioEnergy, facilitated through Bethesda Green's SPV structure, demonstrates the power of combining complementary technologies to address complex environmental challenges. Our expertise in managing large-scale, sensitive data sets through Google Cloud infrastructure will ensure that environmental impact data is not only secure but also accessible for real-time monitoring and optimization.

IndyGeneUS Bio commits to providing our advanced blockchain and analytics capabilities throughout the project lifecycle, ensuring transparent verification of environmental benefits while maintaining the highest standards of data security. This collaboration represents a crucial step toward establishing Maryland as a leader in both environmental innovation and secure data management.

The Reimagine Dickerson project embodies the kind of forward-thinking initiative that Maryland needs to achieve its environmental goals while maintaining the highest standards of accountability. Through our partnership, we will demonstrate how advanced technology can support and verify environmental progress, creating a model for future sustainable development projects.

Sincerely,

A handwritten signature in black ink, appearing to read "YH", with a long horizontal stroke extending to the right.

Yusuf Henriques
Chief Executive Officer
IndyGeneUS Bio



November 6, 2024

Re: Letter of Support and Commitment for Avos BioEnergy's Reimagine Dickerson

Dear Review Committee:

As Executive Director of Bethesda Green, I am writing to express our strong support and formal commitment to Avos BioEnergy's application for their Reimagine Dickerson project.

Bethesda Green is a 501(c)(3) nonprofit that serves as a catalyst for sustainable living and practices. We incubate green entrepreneurs, educate the community and businesses, and unite leaders to launch initiatives that enhance sustainability and climate resilience.

Bethesda Green is proud to this project which aligns closely with our mission. We have been actively involved James Walters and his team since the summer of 2024, when Avos BioEnergy joined our incubator program. We have worked closely with to refine their approach to creating Maryland's first AI-powered biopower demonstration hub.

This innovative project helps create a clean energy infrastructure that incorporates advanced AI and XR technology. Alongside environmental benefits, including carbon-negative energy production and waste-to-energy systems, the hub will also prioritize workforce development through hands-on training facilities. Avos BioEnergy's commitment to a community-centered approach, with a focus on accessible green jobs and diverse workforce development, makes this initiative a powerful asset for sustainable growth and community engagement in Maryland.

Bethesda Green will also commit to provide project management support to Avos BioEnergy. This includes helping to: engage community stakeholders, coordinate local partnerships, and assist with regulatory navigation. Our involvement and extensive experience will help ensure this project's success within Maryland's innovation ecosystem.

We strongly encourage support for this innovative infrastructure project, which will position Maryland as a leader in clean energy technology while creating substantial economic opportunities for our community.

Please feel free to contact me at dave@bethesdagreen.org if you need any additional information.

Sincerely,

A handwritten signature in dark ink, appearing to read "Dave Feldman", with a horizontal line extending to the right.

Dave Feldman
Executive Director Bethesda Green



COLLEGE OF AGRICULTURE AND NATURAL RESOURCES
Office of the Associate Dean, Academic Programs

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September 30, 2024

Dear Proposal Review Committee Members:

I am pleased to provide this letter of support and to offer collaboration for the innovative project proposed by James Walters and Avos BioEnergy to transform Montgomery County's waste facilities and degraded sites into biotech hubs and renewable energy centers.

As Professor and Associate Dean at the University of Maryland's College of Agriculture and Natural Resources, my research focuses on plant responses to environmental stresses and urban forest ecology. This project's emphasis on bamboo for bioenergy and phytoremediation aligns perfectly with our College's strategic initiatives in sustainable food production, "OneHealth," and Chesapeake Bay restoration efforts.

The proposed work matches our research priorities and complements our programs in Environmental Science, Plant Science, and Environmental Economics. We are excited about the prospects of creating internships and for-credit classes that will benefit our students by broadening their educational opportunities and allowing them to contribute to this cutting-edge research.

I'm particularly impressed by the project's innovative approach to:

- Using bamboo for bioenergy and environmental remediation
- Integrating urban forest ecology in site restoration
- Exploring ecosystem services of restored industrial sites
- Addressing climate change and urbanization challenges

The team assembled for this project is very strong, increasing the likelihood of its success. Bamboo is an excellent choice due to its fast growth and ability to thrive on marginal sites with lower fertilization requirements than traditional biofuel crops.

I am eager to contribute my expertise in plant physiological ecology and environmental stress responses to this effort. Our faculty and graduate students are also keen to participate as the work develops.

I strongly encourage you to give this proposal careful and full consideration. It represents the type of innovative, cross-disciplinary approach needed to address our complex environmental challenges.

Please contact me if you need any additional information.

Sincerely,

Joe H. Sullivan,
Professor and Associate Dean



GREEN
MECHANICS

November 21, 2024

Maryland Energy Administration 1800 Washington Boulevard, Suite 755 Baltimore, MD 21230

Re: Letter of Support for Reimagine Dickerson Initiative - MEA Open Energy Innovation Program

Dear Grant Review Committee:

I am writing to express Green Mechanics BLLC's enthusiastic support for Avos BioEnergy's Reimagine Dickerson initiative under the MEA Open Energy Innovation Program. As a steward in ecological engineering and nature-based solutions for water quality improvement, Green Mechanics BLLC recognizes the transformative potential of this comprehensive approach to waste valorization and clean energy generation.

Our company's expertise in algal turf scrubbing and microbial fuel cell technologies aligns perfectly with the initiative's innovative vision. Through our role in the project, we will implement advanced biological systems that simultaneously improve water quality and generate clean energy, demonstrating the powerful synergy between environmental restoration and renewable energy production.

The Reimagine Dickerson initiative represents a unique opportunity to showcase Maryland's leadership in sustainable technology innovation. The project's integration of multiple complementary technologies, managed through Bethesda Green's Special Purpose Vehicle structure, creates a robust framework for successful implementation while ensuring clear accountability and efficient resource utilization.

Green Mechanics BLLC commits to providing technical expertise, operational support, and ongoing collaboration throughout project implementation. Our team will work closely with project partners to optimize system performance while maximizing environmental benefits. This partnership demonstrates the power of collaborative innovation in addressing Maryland's environmental and energy challenges.

We strongly encourage MEA's support for this groundbreaking initiative. The project's alignment with Maryland's environmental goals, combined with its innovative approach to clean energy generation, creates tremendous potential for positive impact across our state.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry Davis". The signature is fluid and cursive, with a large initial "L" and "D".

Larry Davis
Chief Executive Officer
Green Mechanics BLLC



NEXT GENERATION, INC.
CULTIVATING CLEAN ENERGY LEADERS

November 16, 2024

Re: Letter of Support and Commitment for Avos BioEnergy's AI-Powered Biopower Infrastructure Hub

Dear Review Committee:

As Vice President of Next Generation Inc. (Next Gen), I am writing to express our enthusiastic support and formal commitment to Avos BioEnergy's application to the MEA for their Reimagine Dickerson initiative.

Next Gen specializes in developing comprehensive workforce training programs focused on creating opportunities for BIPOC individuals and women in emerging technology sectors. Our partnership with Avos BioEnergy represents a unique opportunity to build inclusive workforce development infrastructure in Maryland's growing clean energy sector.

Our Specific Commitments:

Workforce Development Infrastructure:

1. Physical Infrastructure Support
 - Training facility design and setup
 - Equipment for hands-on technical training
 - Mobile training unit development
2. Program Development
 - Custom curriculum creation for biopower operations
 - AI/XR training module development
 - Career pathway mapping and implementation
 - Professional certification framework
3. Community Engagement
 - Targeted outreach to underserved communities
 - Partnership with local workforce boards
 - Collaboration with regional educational institutions

Implementation Metrics:

- Minimum 60% participation from BIPOC and women
- Creation of 10 paid internships
- Development of 3 professional certification tracks

These resources are available, committed, and unencumbered for the duration of the project. Our commitment includes working closely with Covanta during the proof-of-concept phase to ensure alignment between workforce development and industry needs.

Next Gen believes this project represents a crucial opportunity to create sustainable, inclusive pathways into Maryland's clean energy sector. The combination of cutting-edge technology infrastructure and comprehensive workforce development will create a model for equitable economic growth in the state.

We strongly encourage support this transformative project, which perfectly aligns with the MEA's mission of fostering inclusive economic growth and workforce development in Maryland's innovation economy.

Please don't hesitate to contact me if you need any additional information about our commitment to this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Lauren Peters". The signature is fluid and cursive, with a long horizontal stroke at the end.

Lauren Peters
Vice President Next Generation Inc.



NIMA RAHBAR, PH.D.
DEPARTMENT HEAD,
RALPH H. WHITE FAMILY DISTINGUISHED PROFESSOR
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September 17, 2024

Dear Proposal Review Committee Members:

I am writing to express my strong support for the innovative project proposed by James Walters and Avos BioEnergy to transform Montgomery County's waste facilities and degraded sites into biotech hubs and renewable energy centers. As the White Family Distinguished Professor and Department Head of Civil, Environmental, & Architectural Engineering at Worcester Polytechnic Institute, my research focuses on mechanics, materials, and structures, with a particular emphasis on bioinspired design. I have had the pleasure of collaborating with James on the Bamboo SteelCane research and development project, which aligns closely with the goals of this new initiative.

This project presents exciting opportunities that resonate with my research interests:

1. Establishing comprehensive databases for advanced materials, including nanocomposites, which are crucial for both biodefense and bioeconomy applications.
2. Exploring the potential of bamboo as a sustainable, high-performance material for construction and energy production.
3. Applying bioinspired design principles to develop innovative solutions for waste management and environmental remediation.
4. Investigating the use of carbon-negative materials in large-scale applications, similar to our work on Enzymatic Construction Material (ECM).

The interdisciplinary nature of this project, combining waste management, renewable energy, and advanced materials research, presents an excellent opportunity for groundbreaking discoveries. It also aligns with our goal of exciting students' curiosity towards creative scientific advancements.

I am particularly impressed by the project's potential to:

- Develop novel, sustainable materials for construction and energy production
- Create a circular economy model for waste management
- Advance our understanding of bioinspired materials at multiple scales
- Provide hands-on research opportunities for students in cutting-edge fields

As an advisor, I am eager to contribute my expertise in materials science and bioinspired design to this effort. The project's approach of integrating waste management, energy production, and advanced materials development provides an excellent platform for translating our research into practical, sustainable solutions.

I strongly endorse this initiative and recommend its implementation. It represents the type of innovative, cross-disciplinary approach needed to address our complex environmental and materials challenges.

Please feel free to contact me if you require any additional information.

Sincerely,

Respectfully,



Nima Rahbar, Ph.D.

Department Head
Ralph H. White Family Distinguished Professor
Department of Civil, Environmental, & Architectural Engineering
Department of Mechanical Engineering
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NRGcoop LLC

Profit-able Sustainability Solutions

November 21, 2024

Re: Letter of Support for Reimagine Dickerson Initiative - MEA Open Energy Innovation Program

Dear Grant Review Committee:

I am writing to express NRGcoop's enthusiastic support for Avos BioEnergy's Reimagine Dickerson initiative under the MEA Open Energy Innovation Program. As a leader in sustainability implementation (i.e. SolarPV/Backup, Green Infrastructure, HVAC/CHP, EV Charging, Benchmarking & Controls/Monitoring) in Maryland for over 15 years, NRGcoop recognizes the transformative potential of this approach to waste to energy generation.

Our company's expertise in sustainability implementation aligns perfectly with the initiative's innovative vision. Through our role in the project, we will implement advanced sustainability measures that generate clean energy, demonstrating the powerful synergy between environmental restoration and renewable energy production.

The Reimagine Dickerson initiative represents a unique opportunity to showcase Maryland's leadership in sustainable, profitable technology innovation; and the project's integration of multiple complementary technologies, managed through Bethesda Green's Special Purpose Vehicle structure, creates a robust framework for successful implementation while ensuring clear accountability and efficient resource utilization.

NRGcoop commits to providing technical expertise, operational support, and ongoing collaboration throughout project implementation. Our team will work closely with project partners to optimize system performance while maximizing environmental benefits. This partnership demonstrates the power of collaborative innovation in addressing Maryland's environmental and energy challenges.

We strongly encourage MEA's support for this groundbreaking initiative. The project's alignment with Maryland's environmental goals, combined with its innovative approach to clean energy generation, creates tremendous potential for positive impact across our state.

Sincerely,



Mike Kennedy
CEO and Founder
NRG Coop



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August 27, 2024

To whom it may concern:

I am writing to express my strong support for the innovative project proposed by James Walters and his team at Avos BioEnergy. This initiative aims to transform Montgomery County's municipal solid waste facilities and degraded industrial sites into cutting-edge biotech hubs and renewable energy centers. As a researcher specializing in clean energy technologies and sustainable engineering solutions, I find this project both timely and crucial for advancing our transition to a more sustainable future.

By way of background, I am a Professor of Chemical Engineering at Worcester Polytechnic Institute, where I hold the positions of William B. Smith Fellow and Dean of Engineering Chair. My research focuses on the environmental and engineering aspects of clean energy technologies, with a specific emphasis on liquid transportation fuels. Currently, I am leading projects on renewable energy and waste-to-energy technologies, biomass fuels, and the application of data science to engineering problems. A significant portion of my work involves developing new technologies for converting under-utilized energy resources into fuels and chemicals, which aligns closely with the goals of this project.

I have had the pleasure of collaborating with James on several research projects, including our soon accepted published perspective on using bamboo for phytoremediation on mine lands while simultaneously producing biofuels. Our joint research has demonstrated the remarkable versatility of bamboo, not only for biofuel production but also for creating materials with strength comparable to steel and for various biomanufacturing purposes such as bioplastics and biochemicals.

The project's emphasis on converting under-utilized resources into fuels and chemicals aligns perfectly with my research interests. By combining concepts from various sub-disciplines – such as phase equilibria and reaction mechanism analysis – into an integrated process technology, this initiative represents the kind of imaginative collaboration that I believe is essential for solving the pressing technological challenges of the 21st century.

As a researcher and advisor, I am excited to contribute my expertise in clean energy technologies, reaction engineering, and thermodynamics to this effort. The project's approach of integrating waste management, energy production, and advanced materials development provides an excellent opportunity to translate engineering talents into technologies that benefit society and the environment.

I wholeheartedly endorse this initiative and strongly recommend its implementation. It exemplifies the type of cross-disciplinary, innovative approach needed to address the complex energy, economic, and environmental security challenges we face today.

Sincerely,

Michael T. Timko, Ph.D.
Professor of Chemical Engineering
Worcester Polytechnic Institute
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mttimko@wpi.edu

Eric M. Young, Ph.D.
Associate Professor of Chemical Engineering
Worcester Polytechnic Institute

August 29, 2024

Dear Sir or Madam:

I am writing to express my support for the innovative project proposed by James Walters and his team at Avos BioEnergy. This initiative aims to transform Montgomery County's municipal solid waste facilities and degraded industrial sites into cutting-edge biotech hubs and renewable energy centers. As an expert in synthetic biology and metabolic engineering, I find this project both exciting and crucial for advancing sustainable biotechnology.

The project's focus on utilizing non-conventional organisms, particularly yeasts and other microorganisms, for bioenergy production, biodefense, and biomedicine production aligns perfectly with my research interests. The innovative approach to creating biofoundries in Maryland and Massachusetts, coupled with the use of invasive species like bamboo as feedstock, represents a significant step forward in closed-loop innovation and sustainable biotechnology.

Key strengths of this initiative include:

- Leveraging synthetic biology for biofuel and biomedicine production
- Utilizing non-conventional organisms and invasive species as feedstock
- Creating a network of biofoundries for accelerated research and development
- Fostering a robust research-to-business translation pipeline
- Promoting sustainable and innovative solutions to environmental challenges

The synergy between our research groups in creating a trust research network connecting Maryland to Massachusetts is particularly promising. This collaboration will enable us to optimize research-to-business translation, providing students and researchers with unique opportunities to contribute to real-world solutions.

As a researcher and advisor, I am excited to contribute my expertise in metabolic engineering, protein engineering, and systems biology to this effort. The project's approach of treating cells as "chemical factories" to solve problems in biofuels, biomaterials, and biosensors aligns with my research philosophy and WPI's project-based learning approach.

I wholeheartedly endorse this initiative and strongly recommend its implementation. It represents the kind of innovative, interdisciplinary approach needed to address complex challenges in sustainability and biotechnology.

Sincerely,



Eric M. Young, Ph.D.
Associate Professor of Chemical Engineering
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Columbia University
MAILMAN SCHOOL
OF PUBLIC HEALTH

L.H. Ziska, PhD
Associate Professor
Columbia University

September 7, 2024

Dear Sir or Madam:

I am writing in enthusiastic support of the innovative project proposed by James Walters and his team at Avos BioEnergy. This initiative aims to transform Montgomery County's municipal solid waste facilities and degraded industrial sites into cutting-edge biotech hubs and renewable energy centers. As a global expert on climate change and plant biology, I find this project both unique and underappreciated in its approach to sustainable development.

The project's focus on utilizing invasive species, particularly bamboo, for biofuel and biochar production is especially compelling. Bamboo's rapid growth rate, genetic diversity, and ability to thrive on marginal soils make it an excellent cellulosic source for biofuels. Moreover, the project's innovative use of genomic data for bioremediation and crop optimization represents a significant advancement in environmental science and agricultural innovation.

Key strengths of this initiative include:

- Leveraging fast-growing invasive species for bioenergy production
- Applying cutting-edge genomic data to optimize land restoration and crop selection
- Transforming underutilized sites into productive biotech hubs
- Enhancing food security and climate resilience
- Promoting public health through improved air quality and nutrition

The assembled team for this proposal is outstanding. Their background, knowledge, enthusiasm, and persistence are well-suited to meeting the economic, social, and environmental challenges this project presents.

As an advisor, I am delighted to be part of this effort and happy to contribute my own experience, knowledge and skills in making this initiative a success. I wholeheartedly endorse this project and strongly recommend its implementation.

With kindest regards,

Lewis Ziska, PhD
Associate Professor
Environmental Health Sciences
Mailman School of Public Health
Columbia University.
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Phone: 212-305-6244