Jamie Whitehouse

From:	Judith Stribling <admin@friendsofthenanticoke.org>
Sent:	Monday, March 8, 2021 11:19 AM
To:	Planning and Zoning
Cc:	pettinger@bioenergydevco.com
Subject:	Letter of support for Bioenergy Devco Proposal
Attachments:	Joint Statement in Support of Bioenergy Devco Proposal.docx

Dear Members:

I am writing on behalf of the Friends of the Nanticoke River, a bi-state nonprofit organization dedicated to the conservation of the Nanticoke Watershed, and two other local environmental organizations within the Watershed, Dorchester Citizens for Planned Growth and Wicomico Environmental Trust. All three organizations strongly support Bioenergy Devco's pending anaerobic digester proposal. We believe the proposed facility would provide important environmental benefits and urge you to approve it.

Respectfully submitted,

SUPPORT EXHIBIT

Dr. Judith Stribling, Professor Emerita, Salisbury University

--
Friends of the Nanticoke River
PO Box 15
Nanticoke, MD 21840
www.friendsofthenanticoke.org

SUPPORT EXHIBIT

March 8, 2021

Statement of Support for Bioenergy Devco Proposal to Add Anaerobic Digesters and Wastewater Treatment Equipment to Sussex County Composting Facility

We are writing to express our strong support for the proposal by Bioenergy Devco to add and operate anaerobic digesters at the Sussex County composting facility it recently purchased from Perdue Farms. While our organizations focus on various aspects of environmental conservation in the Nanticoke or wider Delmarva Chesapeake Bay Watershed, we all agree that Bioenergy Devco's anaerobic digestion facility will provide beneficial environmental improvements.

If approved, the Bioenergy Devco anaerobic digestion facility will process up to 220,000 tons of poultry processing and hatchery waste a year. Under a 20-year contract with Perdue Farms, the facility will process all of the "dissolved air flotation" ("DAF") waste material from Perdue's processing plants throughout Delaware and in Wicomico County, Maryland, as well as appropriate hatchery waste and a small amount of chicken litter. The facility will have capacity to handle such waste from other sources as well.

We understand that the anaerobic digestion process will occur in fully enclosed structures with negative pressure. The process will require little if any water, as the DAF waste is normally 85 to 95 percent liquid in its composition, but the facility will capture stormwater for use onsite as needed.

The primary outputs of the process will be compost and organic natural gas. The nitrogen, phosphorus, and potassium content of the compost can be adjusted. Ninety-five percent will be sold for soil replacement or garden use outside the Nanticoke Watershed. The facility will also capture methane gas that would otherwise escape into the atmosphere, which Bioenergy Devco has arranged for Chesapeake Utilities to treat and transport to local customers in its Delmarva Pipeline. Small amounts of other gases, including green hydrogen, will also be captured for use. Finally, water remaining from the primarily liquid DAF material at the conclusion of the process will be treated in a wastewater facility to be added within the existing footprint.

By way of comparison, high-nutrient DAF material is now stored by one or more waste management companies in multiple large, open-top tanks in Delmarva's Chesapeake Watershed, prior to being spread liberally on local farm fields as a soil amendment. The methane produced by decomposing DAF waste now escapes as greenhouse gas into the atmosphere. The anaerobic digestion process will more completely decompose the DAF waste, producing a sufficient quantity

of methane to be diverted to the Delmarva Pipeline, which would otherwise transport only fracked natural gas. Thus, the anaerobic digestion of DAF and other poultry processing waste will address environmental and public health risks created by the current handling of this waste within the Watershed.

We applaud Perdue Farms and the Delmarva Chicken Association (formerly DPI) as well as Bioenergy Devco for supporting this project and urge Sussex County officials to approve it.

Respectfully submitted,

Dorchester Citizens for Planned Growth
Fred Pomeroy, President
Richard Ball, Vice President

Friends of the Nanticoke River
Jay Martin, President
Dr. Judith Stribling, Professor Emerita, Salisbury University

Wicomico Environmental Trust
Dan O'Hare, President
Madeleine Adams, President-Elect

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STATE OF DELAWARE
DEPARTMENT OF AGRICULTURE
2320 SOUTH DUPONT HIGHWAY
DOVER, DELAWARE 19901
AGRICULTURE.DELAWARE.GOV

MICHAEL T. SCUSE
SECRETARY
KENNETH M. BOUNDS
DEPUTY SECRETARY

TELEPHONE: (302) 698-4500
TOLL FREE: (800) 282-8685
FAX: (302) 697-6287

February 2, 2021

Robert C. Wheatley, Chairman
Sussex County Planning and Zoning Commission
2 The Circle
Georgetown, DE 19947

Dear Chairman Wheatley,

On behalf of the Delaware Department of Agriculture, I am pleased to provide a letter of support for the proposed organics recycling project by Bioenergy DevCo (BDC) at the former Perdue AgrirRcycle facility. Bioenergy's proposal is in perfect alignment with the Department's mission to promote the viability of food, fiber, and agricultural industries in Delaware through quality services that protect the general public's health and welfare and enhance the environment, health, and welfare of the general public. This project provides a sustainable solution for organic waste produced by the poultry industry, Delaware's most significant agricultural sector.

Delaware's poultry industry supports more than 20,000 jobs, directly and indirectly, while generating a $3.5 billion economic impact to our state. Ranked first in the nation, Sussex County produces more than 200 million broilers per year. Growing and processing broilers at this scale result in a significant amount of poultry litter and DAF sludge. The selection by BDC to locate their project in Sussex County is vital. Their commitment to investing more than $40 million in repurposing and upgrading the former Perdue AgriRecycle facility will create a state-of-the-art facility dedicated to sustainable nutrient management, renewable energy, healthy soil products, and the creation of jobs for our residents.

The BDC project represents an opportunity to help transition the poultry industry to a more sustainable future. This project will recycle organic poultry waste and convert it into fossil-free biogas through proven anaerobic digestion technology used on farms across the United States. This biogas will then be cleaned and processed into pipeline-quality renewable natural gas and delivered to Delawareans through a partnership with Chesapeake Utilities. This important project not only benefits our residents and the environment but also serves as an innovative solution to agricultural waste that will help sustain and strengthen Delaware's agricultural industry for generations to come.

Sincerely,

Michael T Scuse

Michael T. Scuse
Secretary of Agriculture

SUPPORT EXHIBIT
UPPORT EXHIBIT

February 10, 2021

7870 Holly Branch Drive
Laurel, DE 19956

To Whom It May Concern:

Delaware's poultry industry remains an important part of our state's economy and based on my career, Bioenergy Devco's Anaerobic Digestion facility as a comprehensive organics recycling infrastructure, is needed to ensure that these industries can continue to thrive without compromising the water, air and soil quality of the Delmarva and the Chesapeake watershed. As then Governor Tom Carper said years ago, when discussing formation of Delaware's innovative Nutrient Management Commission, "I will not choose between a viable poultry industry and the environment, I will have both." I believe that the Bioenergy Devco project achieves both things.

This anaerobic digestion facility, known as the Bioenergy Innovation Center (BIC), is designed to process up to 210,000 tons of organic material annually from local poultry processing and agricultural production, materials that would otherwise be disposed of through land application or landfills.

- Anaerobic Digestion technology is not new, it has been used safely throughout the region in wastewater treatment plants and food production facilities for many years. The BIC brings this technology to scale to enhance organics diversion efforts and overall environmental benefits.

- The facility will serve as an anchor for sustainability focused technology and renewable energy in Delaware and offers long term job training and research opportunities for local communities. The BIC facility will create an estimated 30 to 50 well-paying full-time jobs. Not to mention numerous other service jobs from plumbers to electricians, from construction to engineering.
- BDC and its technology partner have an exceptional safety record. In over 20 years and more than 225 Plants worldwide there have been no safety issues. The anaerobic digestion process is completely enclosed and monitored continuously to ensure the safety of employees and more importantly the community.

As a 43 year resident of the Seaford – Laurel area, I believe an anerobic digestion facility as envisioned by Bioenergy Devco (located at the old Perdue AgriRecycle facility) will be a great local partner, supporting our environmental concerns while ensuring the future of our agricultural community.

Sincerely,

Kenny Bounds

SUPPORT EXHIBIT

SUPPORT EXHIBIT

DELAWARE DEPARTMENT OF
AGRICULTURE

2320 South DuPont Highway
Dover, Delaware 19901
agriculture.delaware.gov

Telephone: (302) 698-4500
Toll Free: (800) 282-8685
Fax: (302) 697-6287

Adam Schlachter
Program Manager
Delaware Department of Natural Resources and Environmental Control
Division of Waste and Hazardous Substances
89 Kings Highway
Dover, DE 19901

Dear Mr. Schlachter:

The purpose of this letter is to express the support of the Delaware Department of Agriculture (DDA) for the use of digestate produced by the Bioenergy Devco's Bioenergy Innovation Center (BDC BIC) as a soil amendment to be applied on farms in Delaware.

We understand that the digestate to be a byproduct of the anaerobic digestion process operated at the facility which will convert various feedstocks from the poultry industry into low phosphorous digestate, and low phosphorous dewatered digestate cake, along with renewable natural gas and compost. Alternative uses for manure, such as digestion, are among the technologically driven goals in the State's third Chesapeake Bay Watershed Implementation Plan.

According to information provided by BDC, the cake is expected to consist of about 0.0121% nitrogen, 0.0176% phosphorous and 0.0035% potassium by weight. As I expect you are aware, application of material that contain fertility elements must conform with Delaware's Nutrient Management regulations. This letter confirms that farmers in Delaware would be able to use digestate produced by the BIC under the state's Nutrient Management Program and could be included in the farm's Nutrient Management Plans.

I will also take this occasion to highlight that this material may also be subject requirements under the Delaware's Fertilizer and Soil Conditioner Law, including testing, reporting and registration, depending on how the materials are marketed.

We look forward to the addition of the BIC among Delaware's tools to effectively manage nutrients within the state's agricultural community.

Please feel free to contact me with any questions.

Sincerely,

Chris Brosch
Administrator, Delaware Nutrient Management Program

From: Judith Stribling <admin@friendsofthenanticoke.org>
Sent: Monday, March 8, 2021 11:25 AM
To: Robin Griffith <rgriffith@sussexcountyde.gov>
Cc: pettinger@bioenergydevco.com
Subject: Re: Letter of support for Bioenergy Devco Proposal

On Mon, Mar 8, 2021 at 11:22 AM Judith Stribling <admin@friendsofthenanticoke.org> wrote:

Dear Council Members:

I am writing on behalf of the Friends of the Nanticoke River, a bi-state nonprofit organization dedicated to the conservation of the Nanticoke Watershed, and two other local environmental organizations within the Watershed, Dorchester Citizens for Planned Growth and Wicomico Environmental Trust. All three organizations strongly support Bioenergy Devco's pending anaerobic digester proposal. We believe the proposed facility would provide important environmental benefits and urge you to approve it.

Respectfully submitted,

Dr. Judith Stribling

--
Friends of the Nanticoke River
PO Box 15
Nanticoke, MD 21840
www.friendsofthenanticoke.org

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Friends of the Nanticoke River
PO Box 15
Nanticoke, MD 21840
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FILE COPY

SUPPORT EXHIBIT

March 8, 2021

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We applaud Perdue Farms and the Delmarva Chicken Association (formerly DPI) as well as Bioenergy Devco for supporting this project and urge Sussex County officials to approve it.

Respectfully submitted,

Dorchester Citizens for Planned Growth
Fred Pomeroy, President
Richard Ball, Vice President

Friends of the Nanticoke River
Jay Martin, President
Dr. Judith Stribling, Professor Emerita, Salisbury University

Wicomico Environmental Trust
Dan O'Hare, President
Madeleine Adams, President-Elect

CHESAPEAKE UTILITIES CORPORATION

February 10, 2021

SUPPORT EXHIBIT

Robert C. Wheatley
Chairman, Sussex County Planning and Zoning Commission
PO Box 417
Georgetown, DE 19947

Dear Chairman Wheatley,

Sussex County has the opportunity to be at the forefront of a cleaner energy future. Biogas produced from agricultural waste by the proposed Bioenergy DevCo anaerobic digester facility near Seaford is an important first step.

Over the past 160 years, Chesapeake Utilities Corporation has proudly served the energy needs of the Delmarva Peninsula. As we continue to meet the needs of Delaware's residents and businesses with affordable, reliable and clean natural gas, we are committed to constant improvements.

Our goal is to support a carbon-neutral future. A proven means to achieve this goal requires the introduction of Renewable Natural Gas (RNG) into our natural gas system. As our financial investment into the facility and commitment to accept the biogas demonstrates, we strongly support the conditional land use application submitted by Bioenergy DevCo.

RNG can be a carbon-neutral or carbon-negative fuel because it captures significant amounts of greenhouse gases (GHG), such as carbon dioxide and methane, from organic waste that would otherwise decay and emit into the atmosphere. According to the Environmental Defense Fund, methane from organic waste is a greenhouse gas that is 80 times more potent than CO_2. RNG deployment nationwide could reduce GHG emissions by 235 million metric tons by 2040 while powering nearly 20 million homes through existing and expanded natural gas distribution lines. Each year, this project would remove GHGs from the atmosphere equivalent to removing 4,000 passenger vehicles from Delaware's roads.

RNG projects are being aggressively pursued across the U.S., both as a means to reduce GHGs and to better manage agricultural waste, strengthening the agricultural industry. The Bioenergy DevCo project is just the first of what we hope will be several RNG projects throughout the Delmarva Peninsula.

It's not at all trite to call this project a "win-win." Approval of Bioenergy DevCo's facility will help strengthen the region's $3.5 billion agriculture industry, contribute to the local economy, and most importantly deliver real and immediate environmental benefits for residents of the county, state and nation.

We therefore urge you to support a cleaner energy future for Delaware and approve Bioenergy DevCo's anaerobic digester facility's Conditional Use of Land.

Best,

Shane E. Breakie

Shane E. Breakie
Vice President, Chesapeake Utilities

SENATE
STATE OF DELAWARE
411 LEGISLATIVE AVENUE
DOVER, DELAWARE 19901

SUPPORT EXHIBIT

January 27, 2021

Robert C. Wheatley, Chairman
Sussex County Planning and Zoning Commission
2 The Circle
Georgetown, DE 19947

Dear Chairman Wheatley,

Please accept this letter of support for Bioenergy DevCo's proposed organics recycling project at the former Perdue Agrirecycle facility near Seaford, which will create renewable natural gas from agricultural wastes such as poultry litter and DAF using proven anaerobic digestion technology. Agriculture is Delaware's No. 1 industry and poultry farming and processing are an important part of Sussex County's economic fiber and rural heritage. Sussex County farmers produce more than 200 million broilers per year, and the poultry industry supports more than 20,000 jobs and generates $3.5 Billion in annual economic impact in the State of Delaware.

Bioenergy's project supports the poultry industry and our farmers by offering a local and more environmentally sustainable disposable alternative for the waste organics produced from raising and processing chickens. This project to repurpose and upgrade the former Perdue facility represents a more than $40 million investment by Bioenergy in Sussex County and will create a state-of-the-art facility - known as the Bioenergy Innovation Center - dedicated to sustainable nutrient management, renewable energy production, and healthy soil products. In addition to creating job, this project will serve as an anchor for green economic development in Sussex County and the State of Delaware.

Perdue's original mission for this facility was to help the poultry industry on the Delmarva peninsula manage residual organics in an environmentally smart manner. Bioenergy's proposed organics recycling project is in full keeping with this mission, and we are pleased to hear that Bioenergy has entered long-term relationships with Perdue to process its organic wastes into raw biogas and Chesapeake Utilities for the delivery of clean renewable gas within our communities.

With these benefits in mind, we urge the Planning and Zoning Commission to approve any permits and conditional use amendments necessary for this important project to move forward in Sussex County. Thank you for your consideration.

Respectfully,

Gerald W. Hocker
Delaware State Senator, Minority Leader
20th Senatorial District

Brian G. Pettyjohn
Delaware State Senator, Minority Whip
19 Senatorial District

Ernesto B. Lopez
Delaware State Senator
6th Senatorial District

Bryant L. Richardson
Delaware State Senator
21st Senatorial District

David L. Wilson
Delaware State Senator
18th Senatorial District

SUPPORT EXHIBIT

STATE OF DELAWARE
DEPARTMENT OF AGRICULTURE
2320 SOUTH DUPONT HIGHWAY
DOVER, DELAWARE 19901
AGRICULTURE.DELAWARE.GOV

MICHAEL T. SCUSE
SECRETARY
KENNETH M. BOUNDS
DEPUTY SECRETARY

TELEPHONE: (302) 698-4500
TOLL FREE: (800) 282-8685
FAX: (302) 697-6287

February 2, 2021

Robert C. Wheatley, Chairman
Sussex County Planning and Zoning Commission
2 The Circle
Georgetown, DE 19947

Dear Chairman Wheatley,

On behalf of the Delaware Department of Agriculture, I am pleased to provide a letter of support for the proposed organics recycling project by Bioenergy DevCo (BDC) at the former Perdue AgrirRcycle facility. Bioenergy's proposal is in perfect alignment with the Department's mission to promote the viability of food, fiber, and agricultural industries in Delaware through quality services that protect the general public's health and welfare and enhance the environment, health, and welfare of the general public. This project provides a sustainable solution for organic waste produced by the poultry industry, Delaware's most significant agricultural sector.

Delaware's poultry industry supports more than 20,000 jobs, directly and indirectly, while generating a $3.5 billion economic impact to our state. Ranked first in the nation, Sussex County produces more than 200 million broilers per year. Growing and processing broilers at this scale result in a significant amount of poultry litter and DAF sludge. The selection by BDC to locate their project in Sussex County is vital. Their commitment to investing more than $40 million in repurposing and upgrading the former Perdue AgriRecycle facility will create a state-of-the-art facility dedicated to sustainable nutrient management, renewable energy, healthy soil products, and the creation of jobs for our residents.

The BDC project represents an opportunity to help transition the poultry industry to a more sustainable future. This project will recycle organic poultry waste and convert it into fossil-free biogas through proven anaerobic digestion technology used on farms across the United States. This biogas will then be cleaned and processed into pipeline-quality renewable natural gas and delivered to Delawareans through a partnership with Chesapeake Utilities. This important project not only benefits our residents and the environment but also serves as an innovative solution to agricultural waste that will help sustain and strengthen Delaware's agricultural industry for generations to come.

Sincerely,

Michael T Scuse

Michael T. Scuse
Secretary of Agriculture

RECEIVED

FEB 09 2021

SUSSEX COUNTY
PLANNING & ZONING

November 30, 2020

To whom it may concern:

The Sussex Economic Development Action Committee is pleased to endorse BioEnergy DevCo and their partnership for soil composting with Perdue and Chesapeake Utilities into renewable Natural Gas.

The commitment of BioEnergy DevCo and Chesapeake Utilities to bring residential and commercial locally sourced & renewable energy is a long term commitment that will add to the economy and bring jobs to the area.

SEDAC is pleased to endorse this project that should, as it grows continue to establish partnerships and more opportunities.

/signature/
Linda Price
Secretary
on behalf of the SEDAC Board

SUPPORT EXHIBIT

HOUSE OF REPRESENTATIVES
STATE OF DELAWARE
411 LEGISLATIVE AVENUE
DOVER, DELAWARE 19901

RECEIVED

FEB 09 2021

SUSSEX COUNTY
PLANNING & ZONING

January 25, 2021

SUPPORT EXHIBIT

Robert C. Wheatley, Chairman
Sussex County Planning and Zoning Commission

Dear Chairman Wheatley:

Please accept this letter of support for Bioenergy DevCo's proposed organics recycling project at the former Perdue Agrirecycle facility near Seaford, which will create renewable natural gas from agricultural wastes such as poultry litter and DAF using proven anaerobic digestion technology. Agriculture is Delaware's No. 1 industry and poultry farming and processing are an important part of Sussex County's economic fiber and rural heritage. Sussex County farmers produce more than 200 million broilers per year, and the poultry industry supports more than 20,000 jobs and generates $3.5 Billion in annual economic impact in the State of Delaware.

Bioenergy's project supports the poultry industry and our farmers by offering a local and more environmentally sustainable disposable alternative for the waste organics produced from raising and processing chickens. This project to repurpose and upgrade the former Perdue facility represents a more than $40 million investment by Bioenergy in Sussex County and will create a state-of-the-art facility - known as the Bioenergy Innovation Center - dedicated to sustainable nutrient management, renewable energy production, and healthy soil products. In addition to creating job, this project will serve as an anchor for green economic development in Sussex County and the State of Delaware.

Perdue's original mission for this facility was to help the poultry industry on the Delmarva peninsula manage residual organics in an environmentally smart manner. Bioenergy's proposed organics recycling project is in full keeping with this mission, and we are pleased to hear that Bioenergy has entered long-term relationships with Perdue to process its organic wastes into raw biogas and Chesapeake Utilities for the delivery of clean renewable gas within our communities.

With these benefits in mind, we urge the Department of Planning and Zoning to approve any permits and conditional use amendments necessary for this important project to move forward in Sussex County. Thank you for your consideration.

Respectfully,

Daniel B. Short
House Minority Leader
State Representative
39th District

Timothy D. Dukes
House Minority Whip
State Representative
40th District

SUPPORT EXHIBIT

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RECEIVED

FEB 10 2021

SUSSEX COUNTY
PLANNING & ZONING

Educate. Advocate. Innovate.

February 9, 2021

Dear Chairmen Wheatley and fellow Commissioners:

My name is Holly Porter and I am the Executive Director of the Delmarva Chicken Association (formerly the Delmarva Poultry Industry, Inc.), the 1,600-member trade association working for the common good of the meat chicken industry in Delaware, the Eastern Shore of Maryland, and Virginia's Eastern Shore.

In 2020, the Delmarva chicken industry, from farm to harvest represented $3.2 billion in economic value with more than 18,000 jobs in the region. A major challenge for the industry is how our member companies can carefully and wisely manage business while also complying with environmental commitments; particularly in such areas as wastewater management and output of Dissolved Air Flotation (DAF) residuals.

This is why I write in support of the anaerobic digester project being built by Bioenergy Development Group (BDG) in conjunction with Chesapeake Utilities at the site of the former Perdue Recycling facility in Seaford, Delaware. Given BDG's 20-year history in building and operating similar agricultural sites throughout the world and their ability to self-finance these projects, there are few better ways to economically support the Delmarva chicken community while ensuring the environmental health of Sussex county and Delaware residents.

The fit between the poultry industry, BDG and Chesapeake Utilities is a perfect example of the circular economy at work. The poultry industry is a source of organic material that allows us to manage our costs while remaining environmental stewards. The anaerobic digestion process offers sustainable, carbon-negative energy source to augment utility portfolios. In addition, Chesapeake Utilities will minimize its carbon footprint while continuing to deliver sustainable renewable energy and fuel to homes and businesses throughout the Delmarva Peninsula, including chicken farms.

So, I write for our industry in support of this "shovel ready" project as it will drive our local economy while being a living example of what's good for business can be good for the environment and consumers alike. Please feel free to contact me with any questions.

Sincerely,

Holly Porter
Executive Director

16686 County Seat Highway | Georgetown, DE 19947 | 302-856-9037 | www.dcachicken.com |

FILE COPY

RUTGERS
New Jersey Agricultural Experiment Station

Rutgers EcoComplex
1200 Florence-Columbus Road
Bordentown, NJ 08505-4200

ecocomplex.rutgers.edu
609-499-3600
Fax: 609-499-3647

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FEB 10 2021

SUSSEX COUNTY
PLANNING & ZONING

IPPORT EXHIBIT

Chairman Robert Wheatley
Department of Planning and Zoning
2 The Cir,
Georgetown, DE 19947

February 10, 2021

Re: Anaerobic Digestion for Reutilizing Food Waste to Achieve Sustainability and Climate Change Mitigation

Dear Chairman Wheatley;

I am sending this letter in support of your initiative to reutilize food waste through innovative anaerobic digestion technology. Rutgers EcoComplex "Clean Technology Innovation Center" promotes clean technologies to achieve sustainability, contribute to a circular carbon economy and mitigate climate change not only in New Jersey, but also regionally and nationally.

Municipal solid waste is a complex heterogeneous mix of materials and a single technology treatment, such as landfilling or incineration, have proven to be inefficient when it comes to climate change mitigation and a circular carbon economy approach. Pivoting to environmentally sustainable and economically feasible pathways, and to efficiently valorize waste materials and feed them back into the economy, is highly dependent on the quality of the waste, degree of cross contamination, and the technology to reutilize them. Source separated food waste should not be buried in landfill cells since landfill gas recovery is not 100 percent and landfill gas leaks into the atmosphere.

Anaerobic Digestion (AD) of the biodegradable organic fraction of MSW is one of the emerging circular-carbon systems and is considered to be a better solution for converting organic waste into clean energy. The process also produces compost-based byproducts, thus extracting the maximum benefits from organic wastes. Circular-carbon reutilization approaches can position organic waste as a valuable **resource** for energy generation, nutrient recovery as fertilizer, feedstock for further composting and reduced water consumption. Anaerobic digestion will reduce GHG emissions via recovered renewable energy, displace fossil-based energy and recycled nutrients will displace fossil- and mineral-based fertilizers. This is a very important feature of the AD process since research shows that landfills currently emit 18% of US methane emissions. Additionally, state-of-the-art AD technologies can eliminate groundwater pollution often caused by improperly managed landfilling and composting operations. AD facilities are currently being planned throughout the US to divert organic waste from landfills and to produce biogas in the form of "renewable natural gas (RNG)" and compost-based materials as stand-alone facilities.

We understand there are concerns regarding methane generation through anaerobic digestion technology. The most important feature of anaerobic digestion technology is the gas recovery is almost 97% as compared to landfilling technology which may have at best a landfill gas recovery of

RUTGERS
New Jersey Agricultural
Experiment Station

85%. Generating methane and almost fully capturing it and utilizing it for energy use either on site or injecting into the pipelines, can eliminate methane leakages. Renewable Natural gas from organic waste is converted into CO_2, but this form of CO_2 is considered a biogenic carbon since it is sourced from organic waste. Therefore, we support anaerobic digestion activities in the region.

Should you need any technical questions please do not hesitate to contact me at serpil.guran@rutgers.edu.

Sincerely,

Serpil Guran, Ph.D.

Director