

Meeting Summary October 15, 2021

Council Members Present (via Zoom):

Carlo Colella, Vice President & Chief Administrative Officer (Chair) Scott Lupin, Assoc Dir., Environmental Safety, Sustainability & Risk, & Dir., Office of Sustainability David Cooper, Assistant Director of Operations, Division of IT Susan Corry, Manager, Engineering & Energy, Facilities Management Bryan Quinn, Director of Technical Operation, Department of Electrical & Computer Engineering Eric Wachsman, Prof., Materials Science and Engineering and Director, MD Energy Innovation Institute Stephanie Lansing, Professor, Environmental Science & Technology Giovanni Baiocchi, Associate Professor, Geographical Sciences Jennifer Hadden, Associate Professor, Government and Politics Nina Jeffries, Undergraduate Student Representative Laura McBride, Graduate Student Representative

Meeting start time: 1:30pm

Meeting Highlights

Welcome and Introduction of New and Returning Members

Carlo Colella welcomed new Council Members (Graduate Student Representative Laura McBride and Faculty Representative Stephanie Lansing) and returning Council Members.

University Sustainability Fund Annual Report – S. DeLeon

In FY21, the Sustainability Fund awarded ten grants totaling \$405,065. The presentation included a brief overview of the history of the fund and allocations during FY21 as preparation for the FY22 review cycle. (Appendix A)

SustainableUMD Annual Progress Report – E. Hightower

The Office of Sustainability presented on annual progress in calendar year 2020. Notable updates include:

- Updated carbon neutrality commitment to 2025 and a 100% Zero Emissions Vehicle fleet by 2035
- 62.4% reduction in net greenhouse gas emissions compared to 2005 baseline
- UMD's Climate Action Plan must be updated in the next 3 years to maintain compliance with the Carbon Commitment (President's Leadership Commitment, ACUPCC)
- 67% reduction in waste generation during CY2020
- Over 16,000 students reached over the history of the Green Terp and Green Chapter programs

The presentation also included a brief highlight of the curriculum and research inventories completed for the AASHE STARS (Association for the Advancement of Sustainability in Higher Education Sustainability Tracking, Assessment, and Rating System) Report update. (Appendix B)

Post-presentation discussion included questions about implementation of the Carbon Neutral New Development program, opportunities to further expand or clarify the sustainable curriculum and research inventories, and lifecycle cost analysis of sustainability programs at UMD.

Carbon Offsets: CY2020 Purchases and Market Directions -S. DeLeon

Sally DeLeon presented on the offset purchases for the 2020 calendar year and UMD's current carbon offset portfolio. The later half of the presentation focused on current market trends and proposed options for ensuring cost-effective carbon offsets strategies to meet updated climate action commitments. The presentation concluded with discussion of the Council's questions and preferences moving forward. Members expressed interest in ensuring carbon offset purchasing strategies were also matched with on-campus investment to achieve real carbon emissions reductions. Other discussions included early investment in Maryland-specific projects, grid-based renewable energy project RECs and offsets, and other topics. (Appendix C)

Adjourn 3:35 pm

Appendices:

Appendix A: University Sustainability Fund Review (FY 2021)

Appendix B: SustainableUMD Annual Progress Report

Appendix C: Carbon Offsets: CY2020 Purchases and Market Directions

sustainability fund

Annual Report to Sustainability Council (FY21)



Undergraduate Sustainability Fund

Funding Progress

in education, research, & operations since 2010





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Summary of Funding Activity

\$422,706 was available for Sustainability Fund grants in FY21

The Sustainability Council approved \$405,065 in grants

Sustainability Fund Activity	FY21	All Years (FY11-21)
Proposals received	15	337
Funds requested	\$674,059	\$10,458,314
Grants awarded	10	156
Funds awarded	\$405,065	\$3,196,332
Average award	\$40,507	\$20,489



SustainableUMD Progress Summary

Oct. 15, 2021

SUSTAINABILITY COUNCIL GOAL FRAMEWORK



Carbon Neutrality

100% carbon neutral by 2025 compared to 2005, site energy conservation measures, expansion of renewable sources



Education for Sustainability

Formal and informal opportunities for students to gain knowledge/skills/ awareness and to collaborate with staff/faculty on solutions

Local and Global Impact

Partner to further sustainability in Maryland and beyond, encourage sustainable procurement at UMD, support green dining programs



Smart Growth

Alternative transportation, environmental stewardship in landscape, high performance building and utility design

Red exp

Sustainable Water Use

Reduce purchases of potable water, expand harvesting and reuse, responsibly manage stormwater to protect the Chesapeake Bay



Waste Minimization

Divert 75% from the landfill, reduce solid waste generated per person 1% annually, increase cleaning and waste sorting

NEW COMMITMENTS

CARBON NEUTRAL CAMPUS BY EARTH DAY 2025

Progress-to-date:

As of 2020, UMD has reduced emissions 62.3% compared to 2005. Around 80% of remaining emissions are related to power generation on campus.

100% ZERO EMISSIONS VEHICLE FLEET BY EARTH DAY 2035

Progress-to-date:

In 2019, the Council approved the seven recommendations in the Carbon Neutral Fleet Work Group report. Facilities Management is planning a ZEV infrastructure study.

The Office of Sustainability is contacting stakeholders to update existing climate action strategies, integrate the President's commitments, and identify new opportunities to reduce emissions at UMD.

UMD is required to submit a new Climate Action Plan to Second Nature within the next three years to maintain compliance with the Carbon Commitment.

"

We must continue our academic leadership in research, education and service relative to climate science, sustainability and environmental stewardship of our natural resources. I challenge our faculty to become leaders in developing solutions to one of the grand challenges of our time...

We all must become climate ambassadors."

-- President Pines, April 21, 2021



2020-2021 Progress Report

Sustaining Progress in the "New Normal", Going Above & Beyond, and Looking to the Future

2020 TIMELINE: OPERATIONAL IMPACTS OF COVID-19

	 Research transitions to Phase 1: Limited Presence on Jun 5 			- 5	 Spring 2021 semester starts; some students return 		
 - Spring 2020 sen - Business as usu 	nester starts Ial		 Fall 2020 sem students retu Research tran on Aug 24 	ester starts, some rn Isitions to Phase 2	- Transition research s	to 75% occupancy in paces on Apr 5	
JAN 2020	MAR	лиц	AUG	JAN 2021	APR	AUG 2021	
	- Mar 9: Air - Mar 14: S - Mar 15: Tu - Mar 21: S	travel indefinitel tudents return fro elework for non-r evere research re	ly paused om study abroad prog mandatory employee estrictions	grams s	 Aug 2: Employer (unless telework Aug 24: Sponsor resumes within 	es return to campus (agreement) red domestic travel guidelines	

SUSTAINING PROGRESS IN THE "NEW NORMAL"

The SustainableUMD Progress Hub dashboards are up-to-date with 2020 data.

Carbon Neutrality



100% renewable purchased electricity
32% of electricity generated at CHP
21,722 MTCO2e of carbon offsets (15%)



Education for Sustainability

26.5% of courses include sustainability
300 sustainability minor enrollments
1,238 students certified Green Terp



Local and Global Impact

32% sustainable food purchases
35 certified Sustainable Maryland cities
11,737 lbs produce from Terp Farm



Smart Growth

8.13 kCO2e/gsf emissions intensity 14% of campus built as LEED Silver

13 years as Tree Campus Higher Ed



Sustainable Water Use

20% reduction in water consumption (2019)
886 acres of permeable surfaces
\$50,000 for Campus Creek Phase 2



Waste Minimization

68% institutional diversion rate-67% reduction in waste generation868 tons of compost generated

University of Maryland Greenhouse Gas Emissions

Metric Tons of Carbon Dioxide Equivalent (MTCO2e)

124,258 MTCO2e

net greenhouse gas emissions

62.4% reduction

compared to 2005 baseline (Net)

26% reduction

compared to 2019 data (Gross)



UMD Fleet Vehicles

Purchased Electricity

Agriculture (Animals and Fertilizer), Solid Waste, and Refrigerants/Chemicals

Co-gen Electricity

- Combined Heat and Power Plant (CHP) and Other Stationary Sources
- Verified Carbon Offsets

GOING ABOVE & BEYOND DURING COVID-19 BUILDING-LEVEL ENERGY DEMAND

150

32%

OF ENERGY DEMAND DRIVEN BY OCCUPANCY

OF ELECTRICITY SUPPLIED BY CO-GEN PLANT

1,211,317 MMBtu

CONSUMED IN 2020 (14% REDUCTION AGAINST 2018)

University of Maryland Greater College Park Energy Consumption



Natural Gas (MMBtu)

Steam (MLbs)

Electric (MMBtu)

GOING ABOVE & BEYOND DURING COVID-19 BUILDING-LEVEL ENERGY DEMAND

	CY 2018	CY 2019	CY 2020	
Totals (MMBtu)	1,484,379	1,408,201	1,211,317	
Year-to-Year Change (%)		-5.1%	-14.0%	
Gas (%)		-8.1%	-0.1%	
Electricity (%)		-0.3%	-19.2%	
Steam (%)		-9.3%	-10.9%	







GOING ABOVE & BEYOND DURING COVID-19

CAMPUS PANTRY & FOOD ACCESS

Between Fall 2020 and Spring 2021, the Campus Pantry served more than **11,000 UMD students, staff, and faculty.**

The Campus Pantry and Dining Services partnered with Prince Georges County Health Department to provide over **2,250 bags** of food, medical resources, and other essential needs to COVID-positive community members.



DISTRIBUTED IN SPRING 2020 - SPRING 2021



GOING ABOVE & BEYOND DURING COVID-19 WASTE MINIMIZATION & PAPER PURCHASES

REDUCTION IN PAPER PURCHASES COMPARED TO 2007

84%

-91%

RECYCLED CONTENT IN 2020 COMPARED TO 33% IN 2007

23,977 reams

PURCHASED IN 2020 COMPARED TO 254,520 REAMS IN 2007



GOING ABOVE & BEYOND DURING COVID-19

IOT STORMWATER AT UMD

In 2020, the Sustainability Fund awarded a **\$43,000** grant to a cross-campus research project to monitor stormwater runoff through real-time sensors.

The study is a major partnership between operations, research, and academics. It creates a **"living laboratory"** for identifying and addressing stormwater infrastructure issues.

66% OF UMD'S MAIN CAMPUS IS PERMEABLE SURFACE



GOING ABOVE & BEYOND DURING COVID-19 GREEN TERP & GREEN CHAPTER OUTREACH

STUDENTS PARTICIPATED IN THE GREEN TERP DIALOGUE SERIES

45%

300 +

OF FRATERNITIES & SORORITIES PARTICIPATE IN GREEN CHAPTER

16,777 students

REACHED OVER NINE YEARS OF GREEN TERP PROGRAMMING, 1,237 STUDENTS REACHED IN 2020

University of Maryland Outreach Participation





GOING ABOVE & BEYOND DURING COVID-19

NEW DEVELOPMENT AT UMD

In June 2021, the Jones-Hill Field House became the **second carbon neutral building** on campus after the Brendan Iribe Center. The facility offers athletic, research, and entrepreneurship space.

Pyon-Chen residence hall opened in Fall 2021. Johnson-Whittle residence hall is scheduled to open in Spring 2022.

340,000 SQUARE FEET OF NEW CARBON NEUTRAL BUILDING SPACE



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LOOKING TO THE FUTURE



AASHE STARS

CAP 3.0

CARBON OFFSETS



AASHE STARS 2.1 UPDATE

Sustainable Curriculum & Research Inventory Results



AASHE STARS REPORT

The Sustainability Tracking, Assessment and Rating System (STARS) Report aims to monitor the integration of sustainability into higher education. It has four sections:

- Academics
- Engagement
- Operations
- Planning and Administration

The curriculum and research inventories provide data for two of eleven question sections in the Academics portion of the report.

UMD is currently ranked AASHE Gold, and last submitted a report in February 2019.

AASHE STARS INVENTORIES

The Office of Sustainability completed two sustainability inventories for the next STARS Report, categorized by UN SDG Targets:

- Curriculum Inventory:
 - Spring 2019 Spring 2020
 - 13,000 courses
 - Data from the Registrar's Office

Research Inventory:

- January 2017 September 2020
- 6,500 research projects
- Data from the Office of Research Administration

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UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS





*Research & Curriculum metrics include duplicated projects - i.e., if a project registered as both SDG 11 and SDG 17, it i included in both SDG totals and twice in the goal category total.

INVENTORY FINDINGS*: SMART GROWTH

TOTAL RESEARCH: \$976.25 MILLION AWARDED OVERLAPPING RESEARCH: \$380.6 MILLION AWARDED TOTAL UNIQUE RESEARCH: \$595.7 MILLION AWARDED

TOTAL CURRICULUM: 78,300 STUDENTS ENROLLED

OVERLAPPING CURRICULUM: 13,150 STUDENTS ENROLLED

TOTAL UNIQUE CURRICULUM: 65,150 STUDENTS ENROLLED



PARTNERSHIPS FOR THE GOALS

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15 LIFE ON LAND



CARBON NEUTRALITY UPDATE

FROM THE PRESENT TO THE FUTURE



01 $\mathbf{02}$ 03 $\mathbf{02}$ 05

BACKGROUND UMD's carbon offsetting programs to date

UMD's 2020 PORTFOLIO Projects and associated credit costs TABLE OF CONTENTS

2020-2021 MARKET TRENDS Voluntary Carbon Market update

STRATEGIC OPTIMISM Future carbon credit purchasing plans, contracts & risk management

DISCUSSION QUESTIONS Explore ideas on framing carbon offsetting for CAP 3.0

BACKGROUND

RITCHIE COLISEUM

EARTH MONTH

#SUSTAINABLEUMD

FOR

UMD

ACTION

UMD's carbon offsetting programs to date

01

Higher Education Sector as Climate Accelerator





PROJECT DEVELOPERS

Build solutions that **REDUCE** or **REMOVE greenhouse** gases from the atmosphere; Register and validate the projects; Issue verified credits to Independent Registries.

CREDIT RETAILERS

Hold inventory of credits to sell to end consumers; Often provide technical, legal and financial support to project developers.

CREDIT BROKERS

Market credits to end consumers; Buy and sell credits on the spot market.





UNIVERSITY SUSTAINABILITY COUNCIL CARBON OFFSET WORK GROUP REPORT

December 2015



GOAL:

Investigate the potential use of carbon offsets as part of the university's carbon reduction strategy and Climate Action Plan.

Chaired by Environmental Finance Center with **broad stakeholder participation** and input from outside experts.

RECOMMENDED:

- Focus on direct emissions reductions before offsets
- 2) Create Greenhouse Gas Reduction fund
- 3) Create carbon offset program with emphasis on **regional projects**
- 4) Offset **air travel** emissions
- 5) Voluntary participation opportunities for faculty, staff and students and co-benefit exploration

UMD's Progress: 2015-2020

- Council work group chaired by Environmental Finance Center
- Implementation plan for internal Carbon Fee on Air Travel
- UMD began offsetting all air travel in 2017
- UMD-SGA began offsetting undergraduate commuting in 2018
- Issued RFP; Awarded contracts to two companies to supply UMD with **third-party verified carbon credits**
- Awarded Sustainability Fund grant to support research that could result in low-cost afforestation and reforestation credits from Maryland
- Developed protocol for certifying, verifying and issuing credits from low-carbon infrastructure projects



PERMANENT

Is the reduction irreversible for an acceptable long period of time?

Is the timing of the reduction appropriate to offset the emissions?

ADDITIONAL

Does the project pass tests showing it is legitimately the result of offset purchases?

VERIFIABLE

Have the projects been evaluated by a qualified outside party?

Can the amount of carbon offset by the project be measured accurately?

REAL AND ENFORCEABLE

Are the offset investments backed up by a written, binding contract?

Is the reduction counted only once and tracked in a registry?



COMMUNITY CO-BENEFITS

Projects that align with UMD's mission including service, global partnerships, innovation and entrepreneurship, new education and research experiences

CHESAPEAKE CONNECTION

Projects should, whenever possible, be in Maryland and the area surrounding the university; Chesapeake Bay watershed as next level of priority

COST-EFFECTIVE

Seek the most cost-effective solutions to decreasing the university's carbon footprint while meeting the other objectives.

2020 PORTFOLIO

Projects and associated credit costs

	TONS (CO2-e)	PORTION	FUND SOURCE	COST	
AIR TRAVEL	14,929	69%	VPA FY21	\$34,188	
IRIBE	1,000	5%	VPA FY21	\$2,290	
UG STUDENT COMMUTING	5,843	27%	Student Sustainability Fee	\$29,955	

15% of Gross Carbon Emissions offset with Verified Carbon Credits

WIND POWER

Projects that qualified to generate credits in India and Texas before 2020 when grid-connected projects became ineligible for climate finance

raid

REGIONAL BLEND

Landfill methane, Low-carbon freight transport, and support for reforestation (Chesapeake Bay Foundation)

Supplying climate-impacted communities in Haiti with equipment to avoid emissions from burning wood/charcoal to purify drinking water (obvious public health co-benefits, supports resilience to climate change)

PROJECT LOCATIONS

2021 PRICES PER TON

2020 STUDENT COMMUTING

2020 AIR TRAVEL & BUILDING

Source: Save the Bay Magazine. Chesapeake Bay Foundation. Spring 2020.

WGL Energy's Carbon Reduction Fund, managed by CBF, finances projects – like forested buffers – that improve both air and water quality.

2020-2021 MARKET TRENDS

Voluntary Carbon Market Update

Phases of the VCM

Since the Sustainability Council convened a Carbon Offsets Work Group (2015) and adopted recommendations (2016-2017), the **Voluntary Carbon Market** has seen unprecedented growth and maturation.

This timeline is not meant to represent a complete illustration of all milestones influencing the evolution of the voluntary carbon markets, but rather illustrative of the changes occurring during various phases of the markets' development.

Phases of the VCM

Since the Sustainability Council convened a Carbon Offsets Work Group (2015) and adopted recommendations (2016-2017), the **Voluntary Carbon Market** has seen unprecedented growth and maturation.

This timeline is not meant to represent a complete illustration of all milestones influencing the evaluation of the voluntary carbon markets, but rather illustration of the changes occurring during various phases of the markets' development.

FIGURE 3.2 Credit issuance and number of projects registered by mechanism

Notes: (1) Data for Spain FES-CO₂ program and Taiwan GHG Offset Management program was insufficient to present annual changes to credits issued and registered activities. Also, data for the crediting mechanism in Colombia was not available at the time of publication. These crediting mechanisms are omitted from the figure. (2) in addition, the following crediting mechanisms did not register any new projects or issue credits in 2020 and were therefore excluded from the graph: Joint Implementation Mechanism, Beijing Forestry Offset Mechanism, Beijing Parking Offset Crediting Mechanism, China GHG Voluntary Emission Reduction Program, Fujian Forestry Offset Crediting Mechanism.

Table 8. Transacted Voluntary Carbon Offset Volume and Average Price by Standard

	2019		2020		2021 (through August)	
	Volume (MtCO2e)	Price (USD)	Volume (MtCO2e)	Price (USD)	Volume (MtCO2e)	Price (USD)
American Carbon Registry (ACR)	2.5	\$5.36	5.4	\$8.44	2.0	\$11.37
Clean Development Mechanism (CDM)	4.9	\$2.02	7.0	\$2.19	8.2	\$1.13
Climate Action Reserve (CAR)	4.0	\$2.34	2.1	\$4.44	4.9	\$2.12
Gold Standard	13.2	\$5.27	13.9	\$4.57	5.2	\$3.94
Plan Vivo	0.9	\$8.99	1.2	\$8.49	0.7	\$11.58
Verified Carbon Standard (VCS)	44	\$1.74	66.1	\$3.76	125.6	\$4.17

Source: Ecosystem Marketplace, a Forest Trends Initiative.

Note: Volumes are calculated from EM Respondents that reported trade data as of 31 August 2021. Respondents did not always respond to all survey questions; differences in the totals (for example, between the total annual volume and the sum of project category volumes) can be attributed to this. Throughout the remainder of 2021 and beyond as more organizations report to EM for the first time, and as existing EM Respondents report new transactions, these figures for 2020 and 2021 will likely continue to be updated. This will be reflected in future installments of EM's SOVCM report and on the EM Data Intelligence & Analytics Dashboard (https://data.ecosystemmarketplace.com).

Figure 7: Average VCM Credit Prices by Transaction Size, 2020 and 2021 (through August)

Source: Ecosystem Marketplace, a Forest Trends Initiative.

Note: Volumes are calculated from EM Respondents that reported trade data as of 31 August 2021. Throughout the remainder of 2021 and beyond as more organizations report to EM for the first time, and as existing EM Respondents report new transactions, these figures for 2020 and 2021 will likely continue to be updated. This will be reflected in future installments of EM's SOVCM report and on the EM Data Intelligence & Analytics Dashboard (https://data.ecosystemmarketplace.com).

Reseller Pricing Distribution per tonne CO2 for smaller orders. Source: AlliedOffsets

FIGURE 3.3

Volumes transacted and prices per sector (2019)

State and Trends of Carbon Pricing 2021

Note: The graphic does not present a comprehensive view of all sectors, only those in terms of highest overall volume transacted and price (or a combination of both) from 2019 are shown. Data is sourced from Ecosystem Marketplace and reflects the sector categories they use in their reporting.

Figure 4 Voluntary carbon credit prices and demand 2019 by vintage (average of wholesale and retail prices)

Table 9: Volume and Price of Spot and Forward Deliveries in 2020 and 2021 (through August)

Source: Ecosystem Marketplace, a Forest Trends Initiative.

Note: Volumes are calculated from EM Respondents that reported trade data as of 31 August 2021. Respondents did not always respond to all survey questions; differences in the totals (for example, between the total annual volume and the sum of project category volumes) can be attributed to this. Throughout the remainder of 2021 and beyond as more organizations report to EM for the first time, and as existing EM Respondents report new transactions, these figures for 2020 and 2021 will likely continue to be updated. This will be reflected in future installments of EM's SOVCM report and on the EM Data Intelligence & Analytics Dashboard (https://data.ecosystemmarketplace.com).

MARCH 3, 2021

CME Group Announces First Trades of Global Emissions Offset Futures

CHICAGO, March 3, 2021 / PRNewswire/ — CME Group, the world's leading and most diverse derivatives marketplace, today announced that its Global Emissions Offset[™] (GEO[™]) futures have launched and are available for trading. The total volume for the first two trading days was 81 contracts across five different contract months, with participation on screen and through the block market from nine firms, including Macquarie Group, Hartree Partners and Mercuria. The first trades took place on Sunday, February 28 and were executed by Evolution Markets Inc.

"A high-integrity carbon market, combined with emissions reduction and high standards of reporting, holds the key to accelerating progress. Today we are calling for the establishment of a new governance body, responsible for setting the Core Carbon Principles (a threshold standard for high quality credits), clear legal standards and uniting existing, fragmented carbon credit markets in one impactful, well-run system."

-BILL WINTERS

Chair of the Taskforce on Scaling Voluntary Carbon Markets, and Group Chief Executive of Standard Chartered

STRATEGIC OPTIMISM

Future carbon credit purchasing plans, contracts and risks

"The University of Maryland will accelerate its Climate Action Plan goal to become a Net-Zero Carbon Neutral campus within the next four years. Through a combination of sustainability measures and the **strategic purchase of carbon credits**, UMD will reach this goal by Earth Day in 2025."

- PRESIDENT PINES

FUTURE

RESERVE FUTURE CREDIT VOLUMES

Project approximate annual purchases and submit requests to purchase far in advance

Investigate opportunities to commit to future purchases from projects in "Help Build" phase

SECURE ACCESS TO MARYLAND PROJECTS

Consider entering into annual offtake agreement(s) with Maryland based projects

Seek partners for afforestation, reforestation and wetland restoration projects

Evaluate opportunities for new landfill gas collection projects

Potential for a Maryland-based Market

LANDFILL METHANE

Atmospheric & Oceanic Science (CMNS) faculty research has shown four times more methane escaping than estimated

FOREST MANAGEMENT

American Forest Foundation launched a new program for family forests that will begin generating credits this year in Western Maryland; **All credits are already sold out through 2024.**

Civil & Environmental Engineering (Clark School) faculty developed technology and VCS protocol for carbon credit verification

FOREST GROWTH

Sustainability Fund grant supported students in Geographical Sciences to submit a new protocol for peer-reviewed credits that UMD could use to fast track project development

COAL MINE

METHANE

Joint Global Change Research Institute faculty showed methane from abandoned coal mines is 50% higher than estimated

WETLAND RESTORATION

Salt marsh restoration recently became eligible for international carbon markets through a new protocol; UMCES and CMNS research supported this process

DISCUSSION QUESTIONS

xplore ideas on framing offsetting for CAP 3.0

FORWARD DELIVERIES

Should we dedicate time and resources this year to determine UMD's total projected carbon offset needs in CY 2022-24 and obtain credit pricing?

Who would be best suited to advise and/or help facilitate project development opportunities in Maryland?

For each emissions source, how quickly should UMD phase in offsetting?

- CHP
- Non-CHP fuel burning sources & refrigerants
- UMD Fleet
- Other UMD Ground Transportation
- Faculty & Staff Commuting
- Graduate Student Commuting
- Agriculture
- Groundskeeping
- Landfilled Waste

COUNCIL DISCUSSION

- Research and Presentation by Sally DeLeon, Sustainability Manager
- Discussion Questions by Office of Sustainability Staff Members:
 Sally DeLeon, Scott Lupin, Emily Hightower
- Market Guidance from Jenna Pugliese, Native
- Presentation template by Slidesgo
- Icons by Flaticon
- Infographics by Freepik
- Images created by Freepik