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Meeting Summary

December 11, 2014

**Council Members Present:**

Carlo Colella, Vice President for Administration and Finance (Chair)

Linda Clement, Vice President for Student Affairs

Ann Tonggarwee, Assistant to President

Russell Furr, Director, Department of Environmental Safety

Scott Lupin, Associate Director, Environmental Safety, and Director, Office of Sustainability

Mary-Ann Ibeziako, Director, Department of Engineering and Energy

Margaret McFarland, Director, Real Estate Development Program

David Lovell, Associate Professor, Civil and Environmental Engineering

Bryan Quinn, Director of Technical Operation, Department of Electrical and Computer Engineering

Ori Gutin, Director of Sustainability, Student Government Association

Matthew Dahlhausen, Graduate Student, Mechanical Engineering

Meeting start time: 2:00pm

Meeting Highlights

**Welcome and Review of November 14, 2014 Meeting Minutes**

Carlo Colella, Vice President for Administration and Finance, welcomed the Council members and called the meeting to order.

**FM Dept. of Engineering and Energy – Energy Initiatives Update**

Mary-Ann Ibeziako, Director of the Department of Engineering and Energy, presented an Energy Initiatives Update to the Council (Appendix A). As stated in the 2009 Climate Action Plan, the university is committed to eliminating greenhouse gas emissions by 2050 through local, verifiable actions with the purchase of offsets being a last resort. With the release of the President’s Energy Initiatives on Earth Day 2014, there are now additional goals to be met. The Department of Engineering and Energy has outlined a plan to make steady progress on these goals through 2050.

Overall Goal

To eliminate net greenhouse gas emissions by 2050, even while expanding building square footage.

* 2005 total energy emissions was 211,132 MTCO2e.
* 2013 total energy emissions was 188,683 MTCO2e.

Overall Progress

* The 2009 Climate Action Plan called for investing $40 million in capital between 2009 and 2020 in energy-savings projects in order to achieve $4.2 million in annual savings.
  + The University has invested $23 million in energy-savings projects, resulting in annual savings of about $3.7 million in energy costs and 11,447 metric tons of CO2.
* Campus CO2 emissions have declined by approximately 18% percent since fiscal year 2005, even with the addition of more than 1,322,206 square feet to the University's physical plant in the same time period.

Short Term Plans – 2020

* Develop 2015 through 2020 Strategic Energy Plan.
* Develop and implement Phase II Cogeneration Facility Plant and Distribution System Upgrade for a projected emissions reduction of 35,000 metric tons of CO2.
* Complete construction of a 2.0-megawatt on-campus solar PV.
* Audit the top 50 energy-consuming buildings and develop a new energy performance contract.
* Develop and implement energy conservation behavior modification program.
* Upgrade lighting in at least 30 buildings during fiscal year 2016.
* Complete installation of approximately 150 (out of 300) energy meters in top 60 energy-consuming buildings
* Begin installation of control system optimization technologies in more than 40 buildings.
* Purchase RECs to meet 2015 to 2020 goals.
* Develop renewable energy procurement strategy to enable carbon neutral new construction.

Long Term Plans – 2050

* Identify the remaining and alternative, currently unknown, operational strategies needed to achieve the 2050 greenhouse gas reduction goal.
* Investigate the feasibility of local offshore wind power and biofuel CHP as part of the University's renewable energy portfolio.
* Development of Campus Smart Grid.
* Complete energy audits in the remaining buildings and implementation of identified energy-efficiency projects.
* Complete installation of control system optimization technologies in more than 100 buildings.
* Expand LED lighting as improved aesthetic, cost-effective options become available; standardize LED task lighting where feasible.
* Optimize plant operations and utility distribution to reduce energy use.

**University Sustainability Fund Projects**

Ori Gutin, Director of Sustainability for the Student Government Association, presented five University Sustainability Fund Projects for the Council to review:

Improving Campus Sustainability Through Automated Thermography

A graduate student submitted a proposal requesting $11,500.00 for his doctoral research. The project will create automated 3D thermal profiling of UMD buildings using unmanned aerial vehicles (UAV) and ground-based robotics, 3D-reconstruction, and automatic anomaly detection. The overarching vision of this project is to improve energy auditing through the development of thermal profiling robots capable of surveying the interior and exterior of multiple buildings.

The Council voted to approve the request for $11,500.00, under the condition that the graduate student conducting this research will adhere to all safety procedures, FAA regulations, and campus policies regarding safety and privacy when operating the unmanned aerial vehicles.

Honeybee Haven

An undergraduate student submitted a proposal requesting $4234.78 for “Honeybee Haven,” a project to plant native shrubbery, ferns, grasses, and herbaceous plants that will attract pollinators to an area between the Benjamin Building and Knight Hall. The Subcommittee voted to fund this project for $3,671.00, which excludes money that was originally budgeted for tools and a sign for the garden.

The Council voted to approve the request for $3,671.00.

Maryland Sustainability Engineering - Paint Branch Bioretention

MDSE, a student organization, received a grant for this project last year and is requesting additional funds in the amount of $6,000. The primary goal of this project is to solve an erosion problem caused by stormwater runoff on the edge of parking lot XXI, behind the Computer Science Instructional building (CSI). The site is along the Paint Branch Trail, which is in close proximity to Paint Branch Creek.

The Council voted to reject this request on the grounds that the new bioengineering building will be constructed on the site, possibly rendering the project obsolete within two years.

Strengthening Pollination Opportunities and Mitigating Erosion Near Shoemaker Building

Staff members in the Counseling Center submitted a proposal requesting $3,550.00. The proposed project would increase pollinator opportunities and improve storm water management at the Shoemaker Building. The design uses careful plant selection and a permeable hardscape to mitigate erosion and improve storm water percolation, and includes constructed barriers with native pollinators.

The Council voted to approve the request for $3,550.00.

Sustainability Choices in Maryland: Historical Perspectives

A faculty member in the History Department submitted a proposal requesting $3,000.00 for a new I-Series Course, “Sustainability and History: the Maryland Experience.” The grant would provide resources for undergraduates to travel to study sites, prepare a range of research materials, and then integrate these materials into their research and their final presentations.

The Council voted to approve the request for $3,000.00, under the condition that the professor teaching this class will make all final projects public and available, and encourage students to publish their research and findings.

**Sustainable Transportation Management and Carbon Offsets Work Group – Draft Scoping Document**

Sally DeLeon of the Office of Sustainability presented a draft scoping document (Appendix B) regarding the creation of a Sustainable Transportation Management and Carbon Offsets Work Group. Although carbon emissions from campus commuters have flat lined in recent years, the university’s carbon emissions related to air travel continue to increase. Therefore, Council believes it would be prudent to create a work group that can examine not only emissions from commuter vehicles, Shuttle-UM buses, and university vehicles, but emissions from air travel related to business, athletics, and Education Abroad as well. The work group would also be tasked with researching opportunities for purchasing carbon offsets and developing carbon offset projects for the university.

The workgroup should develop recommendations for the University Sustainability Council that focus on the following objectives:

Objective 1: Update and augment the list of strategies (published in the 2009 Climate Action Plan) for managing carbon emissions from commuting, air travel and the university vehicle fleet to meet upcoming carbon reduction targets.

Objective 2: Develop procurement guidelines for registered carbon offsets to specify the types, sources, terms and uses that are acceptable within the university’s carbon management strategy.

Objective 3: Develop a plan to offset unavoidable emissions from air travel for Education Abroad, athletic competitions, faculty research and other necessary business trips.

The Council briefly discussed the structure of the work group, including the possibility of creating two distinct workgroups under transportation management–one that would focus on vehicle and commuter emissions, and one that would focus on air travel. It was also suggested that a representative from Human Resources should be included in the work group. Council members decided to look over the draft further, and send any comments, suggestions, or revisions to the Office of Sustainability.

Adjourn: 4:00pm