

University of Maryland University College Climate Action Plan Progress Update

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Cover Image: LEED artwork in the lobby of UMUC's 1616 McCormick Drive building



Section 1: Overview

In January 2008, the University of Maryland University College (UMUC) signed the American Colleges and Universities President’s Climate Commitment (ACUPCC). As a result of signing the ACUPCC, UMUC committed to the following:

1. Initiate two or more tangible actions to begin reducing greenhouse gas (GHG) emissions immediately,
2. Initiate the development and implementation of a comprehensive plan to achieve carbon neutrality,
3. Make the tangible actions, comprehensive plan for achieving carbon neutrality, implementation progress towards achieving the plan, and GHG inventory updates publically available through regular submissions to the ACUPCC Reporting website.

Since signing the ACUPCC, UMUC has achieved each of the above requirements in a timely and quality manner. The table below presents a chronology of UMUC’s ACUPCC-related accomplishments as well as web links to relevant documents.

Table 1. ACUPCC Reporting Chronology

| | |
|---|--|
| <p>Tangible Action Items (Submitted in 2008)</p> | <p>4 Action Items Adopted</p> <ul style="list-style-type: none"> - UMUC has established a policy that all new construction will be built to at least the US Green Building Council’s LEED Silver standard. - UMUC has adopted a policy to procure Energy Star certified products in all areas for which products exist, and the purchase is financially possible and practical. - UMUC encourages the use of and provides access to public transportation for all faculty, staff, students and visitors. - UMUC employs desk side recycling, reusable inter-office envelopes, green cleaning products, paper shredding, and composting. |
| <p>GHG Inventory Updates (Submitted in 2009, odd years)</p> | <p>5 GHG Inventories Completed</p> <ul style="list-style-type: none"> - 2007-2011 GHG emissions inventories completed. - Inventories will be completed for 2007 forward with 2009 being the time of the first official release. - 2012 and 2013 GHG inventory data will be publically released in January 2015. |
| <p>Climate Action Plan and Updates (Submitted in 2010, even years)</p> | <p>1 Climate Action Plan (CAP) and 2 CAP Updates Completed</p> <ul style="list-style-type: none"> - CAP for mitigating GHGs and encouraging climate change education and outreach is submitted in 2010. - First CAP progress update in 2012, second in 2014. |

Presented in UMUC's 2010 Climate Action Plan (CAP) are specific strategies for mitigating GHG emissions and encouraging climate change awareness through outreach. This document revisits UMUC's CAP with an eye towards strategy implementation and milestone attainment. The primary findings of this CAP update are as follows:

- UMUC set the goal of reducing total GHGs by 10 percent by 2012 relative to the 2008 baseline. The University will fall short as a result of additional GHGs from physical and community growth.
- UMUC is currently implementing 18 out of 21 GHG mitigation strategies identified in the 2010 CAP.
- The GHGs per unit of physical space and community member has decreased regularly since 2008 indicating UMUC is becoming cleaner as it grows.
- GHGs from electricity in 2012 are expected to be on par with the 2008 baseline – a significant accomplishment given the roughly 16 percent increase in electricity consumption necessary for new buildings.
- GHGs from transportation, and air travel in particular, account for much of the difference between actual 2012 GHGs and the 2012 reduction milestone.
- Sustainability and climate education efforts continue to advance at UMUC with the recent development of marketing and outreach resources.

Before presenting the details of UMUC's GHG mitigation efforts, however, it is worth taking a broad view of the sustainability accomplishments UMUC has achieved since adopting the CAP in 2010. The following is a summary of recent accomplishments:

- Due to the acquisition of new buildings (i.e., 1601 McCormick Drive) and the completion of green renovations on all UMUC facilities, UMUC now has *three LEED Gold certified buildings*.
- The Leroy Merritt Center for the Art of Joseph Sheppard at the UMUC Inn and Conference Center has a green roof that keeps energy demand down and decreases harmful runoff into the Chesapeake Bay.
- UMUC has purchased and retired 2,208 renewable energy credits, which supports clean and renewable power in Maryland and beyond.
- The Academic Center at Largo has preferred parking for high efficiency vehicles and carpoolers. 1601 McCormick Drive at Largo and the Adelphi Campus have preferred parking for carpoolers. 1616 McCormick Drive at Largo has an electric vehicle charging station. Each site has bike racks and is connected to public transportation.
- All UMUC LEED-certified buildings are equipped with low-flow toilets that conserve water as well as high-efficiency lighting, appliances, and light sensors.

The report that follows is broken into sections including (2) UMUC's Baseline GHG Emissions and Trajectory, (3) Electricity Milestones and Strategy Implementation, (4) Transportation Milestones and Strategy Implementation (5) Other GHG Sources, (6) Engagement, Education and Outreach, and (7) Next Steps for UMUC.

Section 2: UMUC's Baseline GHG Emissions and Trajectory

UMUC's FY 2008 baseline GHG emissions totaled 22,156 metric tonnes of carbon dioxide equivalent (MTCO_{2e}). The most current year for calculated GHG emissions, CY 2011, shows UMUC emitted a net total of 23,354 MTCO_{2e} or a 5.4 percent increase in emissions relative to the baseline year (see Table 2).

Table 2. Total GHG emissions (MTCO_{2e}) by source, 2008-2011*

| Source | FY 2008 (Baseline) | CY 2010 (Current) | CY 2011 (Current) | 08-11% Change | 10-11 % Change |
|------------------------------------|-----------------------|----------------------|----------------------|------------------|-------------------|
| Heating and Cooking Fuel | 865.9 | 618.0 | 610.3 | -29.5% | -1.3% |
| Direct Transportation | 12.0 | 13.0 | 12.5 | 4.5% | -3.8% |
| Refrigerants & Chemicals | 5.4 | 2.0 | 91.5 | 1,594.6% | 4,566.1% |
| Fertilizer Application | 11.2 | 6.1 | 5.7 | -48.6% | -6.0% |
| Purchased Electricity | 9,448.8 | 10,851.4 | 10,443.0 | 10.5% | -3.8% |
| Transmission & Dist. Elect. Losses | 934.5 | 1,073.2 | 1,032.8 | 10.5% | -3.8% |
| Faculty / Staff Commuting | 4,570.5 | 4,159.8 | 4,320.0 | -5.5% | 3.8% |
| Student Commuting | 4,793.7 | 5,020.9 | 4,547.8 | -5.1% | -9.4% |
| Directly Financed Air Travel | 1,037.3 | 1,774.8 | 2,317.2 | 123.4% | 30.6% |
| Other Directly Financed Travel | 97.4 | 136.6 | 160.5 | 64.8% | 17.5% |
| Solid Waste | 237.4 | 190.5 | 169.3 | -28.7% | -11.1% |
| Wastewater | 6.4 | 6.2 | 5.2 | -18.1% | -15.2% |
| Paper | 135.3 | 107.7 | 80.5 | -40.5% | -25.2% |
| Scope 1 | 894.5 | 639.1 | 720.0 | -19.5% | 12.7% |
| Scope 2 | 9,448.8 | 10,851.4 | 10,443.0 | 10.5% | -3.8% |
| Scope 3 | 11,812.6 | 12,469.6 | 12,633.3 | 6.9% | 1.3% |
| All Offsets | 0.0 | -309.7 | -442.3 | N/A | 42.8% |
| Total | 22,155.9 | 23,650.4 | 23,353.9 | 5.4% | -1.3% |

* In addition to differences in activity data across inventory years (E.g., quantity of purchased electricity), FY 2008 employs a slightly different method for attributing a purchased electricity fuel mix, and is a noteworthy, though small factor in explaining change in GHGs over time

As UMUC's total GHG emissions increased over the past few years, so has the institution's community size (i.e., number of students and employees) and building space. In 2010, UMUC added 232,953 gross square feet of space at the Academic Center at Largo, which equates to a roughly 30 percent increase in physical space. Meanwhile, UMUC stateside students and employees both increased by approximately 30 percent between 2008 and 2011. Also of significance, total GHG emissions from UMUC-financed air travel more than doubled between 2008 and 2011 – this occurred partially as a moratorium on faculty and staff air travel was lifted post-2008. Collectively, these factors explain why total GHG emissions have increased at UMUC despite the implementation of GHG mitigation strategies related to building energy management and transportation.

Normalized by community size or physical space, UMUC's GHG emissions have decreased annually since 2008. Each year UMUC is emitting fewer GHG emissions per student served and per gross square foot of space, which is an important indicator of success. While cleaning of the fuel mix for electricity consumed at UMUC explains in part why the normalized metrics exhibit a downward trend (discussed further below), the most significant factor is decreased electricity and energy consumption per square foot of physical space, which can be traced directly to energy efficiency improvements in UMUC's new and existing buildings (see Table 3).

Table 3. GHG and energy metrics, 2008-2011 with annual changes

| <i>Metric</i> | 2008 | 2009 | <i>08-09 % Change</i> | 2010 | <i>09-10 % Change</i> | 2011 | <i>10-11 % Change</i> |
|---|-------------|-------------|---------------------------|-------------|---------------------------|-------------|---------------------------|
| MTCO ₂ e/Student | 1.30 | 1.23 | -5.40% | 1.15 | -6.59% | 1.06 | -7.90% |
| MTCO ₂ e/ 1000 GSF Physical Space | 29.07 | 29.61 | 1.88% | 23.76 | -19.75% | 23.47 | -1.25% |
| MTCO ₂ e/Community Member | 1.12 | 1.07 | -4.62% | 1.00 | -6.37% | 0.92 | -8.24% |
| Mil. BTU/Student | 19.61 | 19.38 | -1.20% | 17.76 | -8.35% | 16.15 | -9.06% |
| Mil. BTU/ 1000 GSF Physical Space | 438.86 | 466.98 | 6.41% | 367.66 | -21.27% | 358.49 | -2.49% |
| Mil. BTU/Community Member | 16.89 | 16.82 | -0.38% | 15.45 | -8.14% | 14.00 | -9.39% |
| MTCO ₂ e/Mil. BTU | 0.066 | 0.063 | -4.25% | 0.065 | 1.93% | 0.065 | 1.27% |

The 2010 CAP set the goal of achieving climate neutrality by 2050.¹ The intermediate milestones were established as follows:

- By 2012, total GHG emissions will be 10 percent below the 2008 baseline
- By 2015, total GHG emissions will be 15 percent below the 2008 baseline
- By 2020, total GHG emissions will be 25 percent below the 2008 baseline

Table 4. UMUC GHGs in 2008, 2011, and prospects for attaining 2012 goal

| Emissions Sources | 2008 (Baseline) GHGs | 2012 % Reduction Target | 2012 GHG Target Value | Gross 2012 Forecasted GHGs* | Net 2012 Forecasted GHGs** | Percent Difference |
|--------------------------|-----------------------------|--------------------------------|------------------------------|------------------------------------|-----------------------------------|---------------------------|
| Total | 22,156 | 0.1 | 19,940 | 23,354 | 21,559 | 8.12% |
| Electricity | 10,383 | 0.11 | 9,241 | 11,080 | 9,332 | 0.98% |
| Transportation | 10,402 | 0.11 | 9,257 | 11,185 | 11,185 | 20.83% |
| Other Emissions | 1,371 | <i>Assumed Constant</i> | 1,371 | 1,089 | 1,042 | -24.00% |

*Assumes all activity in 2012 equal to 2011 including fuel mix, "additional" offsets, etc. ** Accounts for additional and non-additional offsets (see sections below)

¹ It is important to note that the baseline FY 2008 GHG emissions estimate has been updated since the initial GHG inventory, and thus the numbers presented in the CAP (23,017 MTCO₂e) do not match the baseline value above (22,156 MTCO₂e). The current GHG emissions estimate reflects changes to the Clean-Air Cool-Planet Campus Carbon Calculator as well as improved methodologies for estimating emissions from commuting.

Based on the data available for CY 2011 and UMUC's recent and forecasted growth, UMUC will not meet the 2012 GHG emissions reduction milestone, or a 10 percent reduction in total GHG emissions relative to the 2008 baseline (see Table 4). Net GHG emissions for CY 2012, accounting for the retirement of all RECs and associated offsets, is anticipated to be around 21,560 MTCO_{2e} (full inventory not yet complete) or approximately 8 percent above the 2008 baseline.

In CY 2012, net GHG emissions from electricity, which includes offsets from the retirement of renewable energy credits (RECs), will be approximately 1 percent above the 2012 target. On the transportation side CY 2012 emissions are expected to be 20 percent above the 2012 target as a result of increasing UMUC-financed air travel. Compared to the GHG emissions from electricity, there are no offsets available to credit towards the transportation side (RECs may only be used to offset emissions from purchased electricity).

Section 3: Electricity Milestones and Strategy Implementation

In the FY 2008 baseline year, gross GHG emissions from purchased electricity, which includes direct electricity procurement and indirect electricity transmission and distribution losses, totaled 9,449 MTCO_{2e} or approximately 43 percent of net total GHG emissions at UMUC. In CY 2011, this number increased slightly, which reflects the increase in space and in turn electricity consumption, to 10,443 MTCO_{2e} or 45 percent of net total GHG emissions.

Total electricity consumption increased 16 percent between the FY 2008 baseline and CY 2011 while gross total GHG emissions from electricity only increased 11 percent. Electricity consumption outpaced GHG emissions because the fuel mix for electricity generation at UMUC became cleaner between FY 2008 and CY 2011. Specifically, the baseline FY 2008 inventory has comparably more coal and natural gas powered electricity generation compared to CY 2011, which has more hydroelectric and biomass powered electricity generation (see the [CY 2011 Inventory](#) for more details).

In addition to changes in total electricity consumption and the electricity fuel mix, UMUC has received offsets from renewable energy credits (RECs). RECs may only be used to offset emissions from purchased electricity. UMUC accounts for two types of REC's: (1) those retired via Maryland's renewable portfolio standard, and (2) those purchased from the University System of Maryland and retired. In the CY 2010 and CY 2011 GHG inventories, UMUC was credited RECs via Maryland's renewable portfolio standard. In CY 2011, the 705,027 kWh worth of RECs offset UMUC's electricity-based GHG emissions by 423 MTCO_{2e}. The net GHG emissions from electricity consumption in CY 2011 totaled 10,020 MTCO_{2e} as a result – marginally above the FY 2008 baseline emissions for electricity.

UMUC began purchasing RECs from the University System of Maryland in 2011 and will likely continue to do so for the next decade. RECs function as offsets that can be directed at electricity-based GHG emissions in a specific inventory year. In 2011, UMUC purchased 327 RECs equal to 327,000 kWh of clean energy. In 2012, UMUC purchased an additional 1,989 RECs. In CY 2012, UMUC retired all 327 RECs purchased in 2011 and 1,882 of the RECs purchased in 2012 (the solar RECs purchased by UMUC in 2012 have not been retired yet). Together, 2,208,000 kWh worth of RECs have been retired creating a GHG offset of 1,325 MTCO_{2e} in CY 2012. Accounting for both types of RECs, anticipated to total 1,748 MTCO_{2e} worth of offsets in CY 2012, UMUC's net GHG emissions from purchased electricity in CY 2012 is anticipated to be around 9,332 MTCO_{2e}.

Milestones and Strategy Implementation

The CAP set the milestone of reducing 2012 GHGs from purchased electricity by 11 percent relative to the FY 2008 baseline (see Table 4). Based on available data, UMUC will not attain the 11 percent reduction goal for CY 2012 despite purchasing and retiring 2,208,000 kWh worth of RECs. Instead, UMUC's GHG emissions from electricity procurement in CY 2012 are only slightly higher than the electricity GHG emissions target for 2012 (~1 percent above). UMUC has implemented 4 out of 5 electricity-based GHG mitigation strategies (see Table 5).

Table 5. Electricity-based GHG Mitigation Strategies

| Strategy | Status |
|---|---|
| Behavior Modification | Complete: Electric heaters, refrigerators and other appliances are not allowed in employee offices and lights are on sensors. There are few decisions for UMUC employees to make regarding energy use. |
| University-wide Adoption of Smart Strips | Complete: All UMUC buildings have smart-strips installed. |
| UMUC Energy Efficiency Projects | On-going: Facilities Management has completed multiple energy efficient retrofits since 2008 |
| Purchase Renewable Energy Credits | On-going: UMUC began purchasing RECs in 2011 via the University System of Maryland. |
| On-Campus Solar Energy Electricity Generation | Incomplete: UMUC evaluated an investment in solar PV in 2011, but did not find the economics favorable. |

Section 4: Transportation and Strategy Implementation

In FY 2008, total GHG emissions from *non de minimis* transportation sources (including regular commuting and air travel) totaled 10,402 MTCO_{2e}. This value increased to 11,185 by CY 2011, or a roughly 7.5 percent increase in total emissions. It is critical to understand the distinct impact of air transportation GHGs (includes only flights financed directly by UMUC), which *increased* since 2008, and regular commuting-based GHGs, which *decreased* since 2008.

Between 2008 and 2011, GHGs from regular commuting decreased by 5.3 percent. Despite growth in the total student and employee population, both classes managed to drive less often and drive more efficiently during the period. The frequency of driving is a function of UMUC's employee telecommuting policies in addition to changes in student test taking policies (i.e., online student exams on-site vs. remote).

On the other hand, GHG emissions from air transportation, which only accounted for 10 percent of transportation-based GHGs in 2008, now accounts for 21 percent of transportation-based GHGs. This equates to an increase of roughly 1,280 MTCO_{2e} from air travel between 2008 and 2011. In 2008, UMUC had a limited moratorium in place for employee air travel, and the University financed 1.3 million air miles. By 2011, the air miles financed by UMUC totaled almost 3 million.

While GHGs from regular commuting have stayed roughly constant between 2008 and 2011, emissions from air travel more than doubled over the period. Recent changes in commuting policies suggest that GHGs from regular commuting will continue to decrease over the next couple years. Air travel will become an increasingly dominant factor in the transportation-based carbon footprint of UMUC.

Milestones and Strategy Implementation

The CAP set the milestone of reducing 2012 GHGs from transportation by 11 percent relative to the FY 2008 baseline (see Table 4). UMUC is unlikely to attain the 11 percent reduction goal for CY 2012. UMUC's GHG emissions from transportation in CY 2012 are expected to be about 20 percent above the 2012 target goal. The primary reason for falling short of the goal is increased air travel at UMUC. UMUC has implemented 4 out of 5 electricity-based GHG mitigation strategies (see Table 6).

Table 6. Transportation GHG Mitigation Strategies

| Strategy | Status |
|---|---|
| Optimizing Classroom Locations | On-going: UMUC offers courses throughout the MD-VA-DC area with new locations added in past 2 years. |
| Telecommuting and Flex Schedules Policy | Complete: UMUC has instituted and promoted a telecommuting and flex schedule policy. |
| Expand Ridesharing | On-going: The University continues to promote commuter connections as a commuting option. |
| Use of Video Conferencing | On-going: UMUC has multiple video conference rooms. |
| Purchase Carbon Offsets | Incomplete: UMUC has not evaluated purchasing carbon offsets as a GHG mitigation option. |

In addition to the transportation-based GHG mitigation policies outlined above and in the 2010 CAP, UMUC has made other important improvements to their low-

carbon commuting options. Specifically, UMUC is offering preferred parking for high efficiency vehicles and carpoolers as well as offering electric vehicle charging stations in select locations (see Appendix). UMUC continues to accommodate public transportation and biking to campus by supporting or investing in appropriate infrastructure (i.e., bike racks).

Section 5: Other Emissions Sources

The 2010 CAP did not specifically list mitigation strategies for other sources of emissions, which are for the most part *de minimis* emissions individually accounting for less than 5 percent of UMUC's total GHGs. The aim of the CAP was to first and foremost target the most notable sources of GHG emissions, and to secondarily address other sources of emissions. These other sources of emissions include solid waste, waste water, landscaping activities, fuel used for heating and cooking, paper procurement, and UMUC-owned fleet. Collectively, these other sources of emissions accounted for just 6 percent of UMUC's total GHG emissions in 2008 and 3 percent in 2011. As Table 4 demonstrates, GHG emissions from other sources have decreased significantly since 2008 and are a bright spot for the University considering they represent much of UMUC's operations. However, because these other emissions account for so little of the total carbon footprint, their impact is minimal.

GHGs from fuel used for heating and cooking has decreased since the baseline year as a result of building energy efficiency improvements, and potentially weather-related factors. UMUC's fleet is gradually shifting from a gasoline-based fleet to an E85-based fleet. The total volume of E85 consumed in 2011 was approximately equal to gasoline consumption. This is a positive direction for UMUC because 1 gallon of combusted gasoline contributes about 7.4 times more GHGs than 1 gallon of combusted E85. Also, generation of solid waste and wastewater continue a trend of annual reductions as a result of investments in a composting program and low flow toilets, among other waste reduction technology.

Milestones and Strategy Implementation

As stated above, no milestones were set for other emissions sources. However, GHG reductions from other emissions have occurred and have helped to keep UMUC's total emissions relatively constant while electricity consumption and air travel grew. GHG emissions in 2012 are expected to be about 24 percent below their baseline total. Decreased GHGs can be attributed to the following strategies:

- Increased recycling and composting at UMUC;
- Procurement of more fuel efficient vehicles and E-85;
- Procurement of more recycled paper (as opposed to virgin paper);
- Decreased fuel consumption for heating as a result of efficiency measures;
- Lower water and sewer consumption resulting from low-flow equipment.

Section 6: Engagement, Education, and Outreach

The 2010 CAP states, “the University will take advantage of its position as an educator and an agent of personal and societal improvement to advance climate change awareness.” Moreover, “outreach and education in the fields of sustainability and climate are high priorities for UMUC.” UMUC has strived to uphold this commitment through its education offerings, community relations, and employee/student outreach. The following list highlights UMUC’s ongoing sustainability and climate change education and outreach efforts:

- *Education* – UMUC continues to grow its Environmental Management Program with Undergraduate and Graduate degree offerings.
- *Outreach* – UMUC is a member of Maryland’s Green Business Registry and proudly promotes its participation in the Maryland College Climate Workgroup, the LEED program, ACUPCC, and Green Seal Certified.
- *Research/Outreach* – UMUC is not a research institution, but does support research indirectly. Of particular value for the University community is the hosting of science-based conferences at the Adelphi campus. For example, from 2009-2011, UMUC hosted the *Smart and Sustainable Campuses Conference*.

Table 7. Education and Outreach Goals for UMUC Sustainability from CAP

| Goals | Status |
|---|---|
| Expand Course Offerings in Environmental Management | Complete: UMUC continues to offer undergraduate and graduate courses; since 2010 one course – wildlife ecology, has been added to the offerings. |
| Incorporate Sustainability Awareness into Student and Employee Orientations | Incomplete: UMUC is considering how to best integrate sustainability into orientations. |
| Increase Visibility of Climate Goals and Accomplishments | On-going: The University continues to promote its sustainability accomplishments internally and externally. |
| Continue to Participate in Local and Regional Research Efforts | On-going: The University supports research through partnerships and data sharing as appropriate, but does not actively participate in research. |

UMUC made significant progress in advancing sustainability outreach and education in 2013. First, with the help of the University of Maryland Environmental Finance Center, UMUC developed a sustainability logo and informational flyer (see Appendix 1). The flyer is targeted at UMUC employees, students, and visitors who may not be aware of UMUC’s sustainability features including both facilities and operations. This outreach tool will be used to inform current and new employees interested in learning more about UMUC’s sustainability efforts. In addition to the flyer, UMUC is in the process of developing a sub-page for the internal UMUC *engage* website. In addition to communicating UMUC’s sustainability goals and accomplishments, the website will provide helpful resources to faculty and staff seeking to directly improve the sustainability of their own lives. For examples, the *UMUC engage* page

will include weblinks to the U.S. EPA Energy Star website, which has valuable information on saving energy at home. Given the fact that UMUC employees and students are increasingly interacting with the University remotely (i.e., at home), it is critical that UMUC raise awareness of best practices for becoming more sustainable at home.

Section 7: Next Steps for UMUC

Given the significant growth and success of UMUC's educational services over the past five years, it's a notable accomplishment that the University has kept GHG emissions relatively stable. In addition, the University has boosted its role as an educator, communicator, and sustainability leader through its many internal and external efforts. Nonetheless, there remains a lot of work. In order to achieve the carbon neutrality goal, or at the very least maintain positive trends in GHG emissions, there are a few important actions the University can take, listed below:

- The University must focus on air transportation as a source of GHG emissions. *What are the primary drivers behind this source of GHG emissions, what is the near-term forecast for UMUC-financed air travel, and are there any cost-effective solutions to mitigating these GHGs?*
- The University should revisit the possibility of installing renewable energy on campus. *With the help of financing tools such as power purchase agreements, UMUC may be able to install solar PV at no upfront cost, and depending on the terms of the contract, may be able to save on electricity costs.*
- UMUC should focus on better understanding commuting patterns among its employees and students. *Where data are available, it should be further analyzed to see if there is an opportunity for the University to encourage alternative transportation (e.g., carpooling). Additional commuting data can be collected via a small survey.*
- The University should continue its outreach and education efforts. *In addition to sharing the newly developed sustainability flyer, UMUC should seek out partnerships with the surrounding communities and potentially, some private organizations. UMUC should also strive to communicate its sustainability goals to students.*

Appendix (Next Page): UMUC Sustainability Outreach Flyer (Developed in 2013)



Did you know?

UMUC has 3 LEED Gold certified buildings. Additionally, the UMUC ICC & Hotel is green seal certified – the only hotel with this distinction in Maryland. These buildings are highly energy efficient, conserve water, and encourage alternative transportation.

UMUC has a plan for reducing its carbon footprint 25 percent by 2020 through energy efficiency improvements, investments in renewable energy, and support of alternative transportation options for students, faculty and staff.

UMUC is a member of the Maryland Green Business Registry and signatory of the American Colleges and Universities President's Climate Commitment.

UMUC has one of the lowest carbon footprints per community member in the U.S. as a result of online course offerings.

UMUC Green Building Features



Green Roof at ICC and Leroy Meritt Center

The Leroy Merritt Center for the Art of Joseph Sheppard at the **UMUC Inn and Conference Center** has a green roof that keeps energy demand down and decreases harmful runoff into the Chesapeake Bay. **University Centre and the Academic Center at Largo** have energy conserving white roofs.

The **Academic Center at Largo** has preferred parking for high efficiency vehicles and carpoolers. **1601 McCormick Drive at Largo** and the **Adelphi Campus** have preferred parking for carpoolers. **1616 McCormick Drive** at Largo has an electric vehicle charging station. Each site has bike racks and is connected to public transportation.

All UMUC LEED-certified buildings are equipped with low-flow toilets that conserve water as well as high-efficiency lighting, appliances, and light sensors, all of which help to reduce energy consumption and costs.

How can I contribute?



ENGAGE

Tell UMUC how we are doing, discuss with your peers and colleagues, and take advantage of the sustainability resources we have to offer.



RECYCLE

Locate and use the blue bins on campus to recycle paper, plastic, and aluminum.



COMMUTE

UMUC locations at Largo and Adelphi are nearby metro facilities, connected by buses or shuttles, and are bike-friendly. If traveling by personal vehicle, take advantage of fuel-efficient parking benefits or carpool.



CONSERVE

Take a conservation mindset home with you and learn how to reduce energy consumption all the time. For starters, turn off lights when not in use and unplug your phone and devices when fully charged.

For questions or comments, contact Director of Sustainability and Contract Services, Cora Lee Gilbert at T: 301-985-7312 or E: coralee.gilbert-catron@umuc.edu.

