

# Carbon Offsets Work Group

## Background, Objectives and Membership

### University Sustainability Council Work Groups

The University Strategic Plan established the goal for the University of Maryland to “become a national model for a Green University.” UMD is making significant progress toward that goal but much work remains to integrate sustainability into the core of campus operations, teaching, and service.

The University Sustainability Council annually reviews general progress on the University’s Climate Action Plan (CAP), trends in selected campus sustainability metrics, and UMD’s recent performance on the Sustainability Tracking, Assessment, and Rating System (STARS). This review and assessment process reveals priority areas where leadership and focused work is needed. The Council, currently chaired by Carlo Colella, Vice President for Administration and Finance, requested the creation of the following campus-wide work groups to develop recommended goals, plans and strategies:

- Sustainable Buildings and Energy Sources (2012-2013)
- Sustainable Water Use and Watershed Protection (2012-2014)
- Education for Sustainability (2013-2014)
- Carbon Offsets (launch date in early 2015)

### Background on Carbon Offsets

A carbon offset is a credit for greenhouse gas reductions achieved by one party that — once verified by a qualified third party — can be purchased and used to compensate (offset) the emissions of another party. For instance, the University of Maryland could contribute to projects that restore wetlands in the Chesapeake Bay or capture methane at a landfill. If the greenhouse gas reductions from those projects can be measured, verified, and certified, then the university can claim credit for the reductions because of its role in making the projects happen.

Carbon offsets are often considered a last resort in carbon neutral plans because organizations prefer to reduce emissions associated with their own operations before investing in another party’s greenhouse gas reduction project and taking credit for those reductions. Organizations that purchase carbon offsets are sometimes criticized for “buying their way out” of doing more of the hard work of reducing their own emissions. Still, carbon offsetting is often a necessary strategy for achieving carbon neutrality especially for emissions from sources like commuting and air travel where equipment is not under the organization’s direct control. Organizations that have made significant progress in reducing direct emissions are rapidly moving into the offset space to meet their carbon reduction goals.

### Campus Carbon Footprint and Role of Carbon Offsets to meet Climate Action Plan Targets

The University of Maryland reduced its emissions 18% from 2005 to 2013 and will likely achieve its CAP goal of a 25% reduction in emissions for 2015 as it ramps up its use of renewable energy. The Office of

Sustainability estimates that President Loh's Energy Initiatives — if fully implemented over the next five years — will reduce emissions approximately 40% below the 2005 baseline by 2020, which will get the campus closer but not fully to its CAP goal of a 50% reduction by 2020. The university may have to offset an additional 30,000 MT-CO<sub>2</sub>e or more to achieve that goal.

In 2020, almost all of the university's remaining greenhouse gas emissions will come from three sources: 1) the combined heat and power plant (CHP), 2) commuter vehicles, and 3) air travel.

The CHP runs on natural gas and is a relatively stable source of emissions. As the campus reduces energy consumption by improving efficiency, most of the savings will come from purchasing less electricity produced by regional power plants instead of reducing output from the CHP. Therefore, the best opportunities to significantly decrease CHP emissions are increased plant efficiency and a shift to low/no-carbon fuel(s). Both options are being explored but neither is likely to be implemented in time to meet the 2020 CAP target.

On the transportation side, commuter emissions are expected to continue trending gradually downward as more student housing becomes available on/near campus and vehicles become more fuel efficient. However, in recent years, increases in air travel emissions have outweighed reductions in commuting emissions. As more faculty travel overseas for research, more students study abroad, and athletic teams travel farther for sporting events (all of which are also important university goals), the air travel footprint is expected to continue to grow. The Office of Sustainability will work with campus partners to implement programs to attempt to mitigate transportation emissions to the greatest extent possible, but some transportation is necessary to the mission of the institution, so offsets will be needed where emissions cannot feasibly be mitigated.

### **Work Group Objectives**

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

Objective 1: 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 2: Develop a plan to offset unavoidable emissions from air travel for Education Abroad, athletic competitions, faculty research and other necessary business trips. The plan should include guidelines for structuring an offsets portfolio and options for financing offsets.

Objective 3: Consider how the university's participation in the carbon offset marketplace could create new opportunities for local and regional carbon offset projects and/or study abroad experiences for students.

Objective 4: Determine if and how the university can participate in the carbon offset marketplace through non-financial transactions including student implementation of offset projects, faculty/staff consultation on offset projects, and other in-kind contributions.