



TO: Claire Sterk, Provost and Executive Vice-President for Academic Affairs

FROM: Robin Forman, Dean, Emory College of Arts and Sciences

SUBJECT: Climate Action Plan

DATE: August 6, 2014

At the request of the Office of the Provost, Emory College convened a committee of faculty, staff, and students to create a Climate Action Plan for the College, in order to ensure that the College plays its role in supporting the University's bold goal of reducing total carbon emissions by 20% by 2020, and by 50% by 2050.

The report of that committee is enclosed. As you will see, the committee took its charge very seriously, and it understood that such an ambitious goal of carbon emission reduction requires an equally ambitious set of proposals. Several of these proposals are challenging, even provocative, and I hope that they will lead to serious discussion throughout the College and the University. We will be sharing this report with College faculty and staff through our College web page (http://college.emory.edu/home/administration/policy/faculty_reports.html).

The committee endorses several approaches to carbon emission reduction — including:

- I. Educational efforts to build awareness
- II. Energy conservation
- III. Changing patterns of transportation and travel
- IV. Waste reduction
- V. Designing new, and retrofitting old, buildings to be consistent with this goal.

I endorse that approach, and each of the above elements, because I do not believe that we can be successful unless we take such multiple steps simultaneously.

Moreover, the report appropriately emphasizes that for such efforts to be successful, our efforts must be

- I. Data driven: We must do our best to accurately measure our environmental impact and assess change. Better data and measurement allows all actors — whether an individual considering transportation options or a school deciding to create a new department — to understand the impact of their decisions more precisely. Better data also helps us to understand better the necessary incentives, penalties, and trade-offs for reducing carbon emissions.
- II. In collaboration with other university offices and schools, as well as in collaboration with community partners such as MARTA and local government.
- III. At multiple scales, from smaller, more easily and quickly accomplished changes, to larger, more challenging steps.

We have already implemented or are implementing several of the steps that this committee has recommended:

- Emory College has a long history of curricular innovation and student education related to sustainability and the environment. This includes our investment in the Piedmont Project over many years, as well as our support for the current Sustainability Minor. In addition, we are supporting current efforts of the Department of Environmental Sciences to create a new “Sustainability and Science” major that would attract more students to the study of sustainability.
- We have supported flexible work arrangements, when possible, for staff, to decrease staff travel to the campus each day.
- We have encouraged the use of videoconferencing (such as Skype), particularly in the faculty and staff search process. Our office of faculty now recommends videoconferencing as a best practice for screening interviews, rather than having a committee travel to a conference location.
- We are taking steps toward the “space audit” that the committee recommends, with an eye toward using our available office and laboratory space more efficiently in every sense, including reducing our heating and cooling costs.
- We have emphasized the need to LEED-certified construction in all new projects, and are actively seeking opportunities to retro-fit current facilities in ways that increase energy efficiency. We will continue to implement energy reduction strategies, such as temperature controls, automatic lighting and motion detectors, turn-down of systems when buildings are not occupied during holidays and after hours.

There are other steps recommended by the committee that I hope to enact in the coming years. However, it is also clear to me that much of what the committee recommends goes beyond the College of Arts and Sciences. They ask for information, for instance, on the environmental impact of travel to be made to all faculty and staff; they suggest the development of information technology infrastructure to increase videoconferencing; and they recommend the development of physical resources — showers, bike racks, shuttles — that will decrease the number of single-occupancy vehicles coming to campus each day. Many of these initiatives would require coordination and investment across the University.

I am grateful to the committee for its hard work, and I am looking forward to discussing this report with you and other University leaders.

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Emory College of Arts & Sciences Climate Action Plan

Recommendations to Dean of Emory College, Robin Forman

Sept 4, 2013

The Emory College Climate Action Committee members:

Arri Eisen (Chair, Faculty, Biology & ILA)

Peggy Barlett (Faculty, Anthropology)

Karl Hagen (Faculty, Chemistry)

Hiram Maxim (Faculty, German)

Tom Rogers (Faculty, History)

Tracy Yandle (Faculty, Environmental Studies)

Zinnia Johnston (ADA, Spanish & Portuguese)

Dwight Raby (College Facilities)

Joshua Robinson (grad student, Anthropology)

Louis Mennel (Sophomore, undergrad)

Jessica Jones (Senior, undergrad)

I. Umbrella Themes

•Dramatic and ambitious change

The University has set appropriately ambitious goals for greenhouse emission reductions over the coming years, and the College is committed to help lead this effort—practically, culturally and conceptually. This means **more than tweaking**; this means pushing the envelope.

•Measurement of changes

All available data should be drawn on to *prioritize, predict and then assess impact* of changes on our environment.

a. Increasing ‘culture of awareness’

Not all change is easily measured in numbers. While some changes may not have a large or obvious impact, we should also consider impact on the behavioral culture.

•Local partners

To effect change with maximum effect, the College and University must increase active partnerships with MARTA, Atlanta, and Fulton and Dekalb counties and *create mechanisms for employees to access any infrastructure change that results*.

•Incentives

Emory academic expertise should be called on to identify incentives known to change behaviors (not always, but often financial) and these should be effectively instituted to reward those who institute changes we outline below.

•Low-hanging fruit

Priority should continue to be given to relatively easily-accomplished changes that we outline, while at the same time gearing up for more major changes.

II. Curricular and co-curricular

A. Integrate climate change and sustainability issues across the curriculum

The Piedmont project has catalyzed the transformation of curricula across the university. [Dozens of courses](#) across all University schools have been affected, and the Project has been a major driver in changing campus culture, including the establishment of a Minor

in Sustainability. Complementarily, the Department of Environmental Studies leads in teaching and scholarship in these areas. Work will continue in all these programs and projects.

B. Long term

1. More effectively use curricula to catalyze and integrate with all other recommendations and practices in this plan (see Piedmont courses for examples; incentives for doing this built into each department/school's budgets)
2. Collaboration with ECDS to *identify and facilitate processes to require more paperless assignments, testing and grading* (e.g, <https://www.instructure.com>).
3. More research into and support for distance learning strategies to decrease travel.

III. Energy conservation

1. Set strong incentives for decreasing personal air travel

A. This year

1. Develop creative and easy strategies to facilitate Skype, GoToMeeting, and other virtual meetings for college and department activities. Expand resources (phones, etc.) and easy access to the relevant rooms
2. Require *personal carbon offset payments* for any flights (partner with travel services providers) upon reservation.
3. Develop computer programs to allow per flight and annual total carbon footprint data, required to be filled out upon reservation
4. Incentivize consideration of combining trips or decreasing trips (e.g., instead of two short trips to Asia in succession, make it one longer trip)
5. GE has a program by which employees garner points for effectively decreasing travel footprint and then cash the points in for gifts/benefits; model a pilot on their process.

B. Long term

1. Significantly reduce air travel, by as much as 33%, by 2020.

2. Increase computer and server efficiency

A. This year

1. Develop a pilot partnership/policy between College and IT for best practices in computer and server use. Here the College can lead for other schools.
2. Develop and pilot program, in collaboration with Building and Residential Services so classroom computer equipment and lights are shut off every evening. Include incentives for BRS staff.

B. Long term

1. Increase server efficiency by 50%
2. Ensure all College buildings' lights and computers not in use are powered down every evening, if not needed.

3. Work closely with facilities management to expedite current building retrofitting

A. This year

1. Retrofitting in bathrooms, for lightbulbs, light sensors in all rooms, automatic room/projector turnoffs, computer use in offices and classrooms, more vending machine misers, solar panel trash can compressors, etc.
2. Institute regular spot-checks of classroom lights left on; promote awareness of building energy waste 'hotspots'.

B. Long term

1. Complete all retrofitting by 2020

4. Incentivize increases in building efficiency.

A. This year

1. Perform space consolidation audit of College: which spaces are used when for what toward increasing efficient use of space (one model is the recent audit of the 1599 Bldg)

5. Build incentives into recruiting process so that interviews can occur on Skype and create other opportunities to save energy and money in these processes

IV. Transportation

A. This year

1. *Employ current data* from Clean Air Campaign and other sources *to increase College participation in alternative travel to work* (use data to identify practices that leave smallest footprints)
2. *Provide strong incentives by department to decrease single-occupancy driving:* biking, carpool, alternative transport at least one day per week
3. *Partner with **current** shuttles* (e.g, Grady shuttles) to increase current shuttles' stops
4. Support working from home when possible and appropriate
5. Consider free bike programs a la GA Tech (swipe your card on bike-GPS)
6. Build covered bike racks
7. Partner with city/county utilities, *create structures for collaboration to identify areas where sidewalks and other safe-walking infrastructure* are currently absent
8. Review College use of University Fleet vehicles, consolidate usage

B. Long Term

1. Decrease College use of University Fleet vehicles by 33%

V. Waste reduction

A. This year

1. Pilot three College buildings as part of Office of Sustainability Zero Waste Program
2. *Join Green Lab project* of Office of Sustainability—representatives from Chemistry, Biology, and Physics—to pilot significant reduction in lab energy use (plastic reuse/recycling, water chilling, geothermal heating of water, decreasing air turnover, employ solar panels, investigate ‘zebra striping’, separate air pumps, combine/share resources)

B. Long term

1. Collaborate with SOM, RSPH to *vastly improve laboratory practices in energy and material use*: requires education, incentives, collaboration and can save enormously in all university laboratories. Have best practices in place in all College labs by 2020.
2. *Expand access to composting* Zero Waste to all College facilities
3. Continue to facilitate and incentivize recycling of anything that can be recycled.

VI. Buildings

A. This year

1. Expand current successful Programs in LEED Residence Halls, Freshman quad, and include all renovations to be at least LEED-certified silver
2. Develop, in addition to group incentives, *individual incentives* (visual of each room or shower use, etc.) to change behaviors in residence halls
3. Continue to retrofit buildings to *decrease water use, recycle gray water, clean and reuse water*.