

Williams College Campus Environmental Advisory Committee Annual Report 2023-2024

Mike Evans, Jessica Fisher, Giuseppina Forte, Sarah Gardner, Hikaru Hayakawa, Oscar Newman (student chair), Tim Roberts, Tanja Srebotnjak, Heather Williams (faculty chair), Chris Winters

The 2023-2024 CEAC (Campus Environmental Advisory Committee) focused its energies on five areas related to Williams College's sustainability and environmental goals:

Campus waste, a subcommittee including Mike Evans and Oscar Newman. The subcommittee worked with other groups on waste-related issues and brought three proposals to the full committee:

- A "swag" policy intended to reduce the purchase of promotional items that almost immediately become waste.
- That the college sign on to the Break Free from Plastics pledge and cut back on single-use plastics.
- An approach to right-sizing course packet printing so as to reduce waste and cost.

We hope to see these proposals adopted by the College.

(See pages 2-3 for the full waste subcommittee report.)

Built Environment and Landscaping, a subcommittee including Giuseppina Forte, Sarah Gardner, and Tim Roberts. This subcommittee's made many valuable recommendations and raised two important points:

- The college consider ways to coordinate educational and student initiatives that involve campus landscaping, which may require additional staffing and/or interns in the groundskeeping department.
- The administration's review of proposals for conserving college land could be more transparent.

(The built environment and landscaping subcommittee's report has many other valuable recommendations; see pp. 4-5.)

Pedagogical approaches to sustainability issues, a subcommittee including Jessica Fisher, Hikaru Hayakawa, Tanja Srebotnjak, and Heather Williams. The subcommittee's recommendations include:

- Better communication and coordination among entities on campus dedicated to sustainability.
- More support for interdisciplinary teaching and learning around environmental issues.
- Better communication about the curricular pathways available to students interested in climate, sustainability, and environmental issues, and more internships, research, and practical opportunities for students wishing to affect how the campus engages with these issues.

(See pages 6-7 for the full report from the pedagogy subcommittee.)

Environmental and Sustainability Policies, led by Tanja Srebotnjak and Chris Winters. New policies about activities that are energy-intensive are being developed or revised, including:

- The use of appliances such as space heaters, microwaves, and minifridges in dorms and offices.
- Cryptocurrency mining using college resources, including computers, networks, and electricity.
- Battery-powered bicycles and scooters.

(See page 8 for the full report on the subcommittee for environmental and sustainability policies.)

Rewriting the committee's charge and reformulating its composition so as to focus on advising and guiding the College's approach to broader environmental and sustainability issues.

(See pages 9-10 for changes to CEAC and the rationale for these changes, which take effect in 2024-5.)

The 2023-4 CEAC also identified areas that the new CEAC may wish to focus upon:

- Williams College's use of carbon offsets and RECs to achieve nominal carbon neutrality.
(See pages 11-12, and the 2015 CEAC report.)
- College-associated air travel, which is a major source of the college's greenhouse gas emissions.
(The 2020-21 CEAC report and the Zilkha Center's web site provide background information on this issue.)
- Moving beyond divestment from fossil fuels, the college may wish to invest some of its endowment in ventures that actively decrease the use of fossil fuels.
(The 2017 ad-hoc shareholder advisory committee report provides background on this issue.)
- Considering how the sustainable building policy can best be integrated with the college's planning.

CEAC - Waste Subcommittee Report

2023-2024

Mike Evans and Oscar Newman

This year, the CEAC Waste Subcommittee worked to advance a handful of campus waste related projects with other stakeholders from across the college. These projects included considering how:

- Swag (promotional giveaways) could be rethought in a more intentional way.
- Waste from unused course packets could be reduced while still giving faculty discretion about whether students in their courses use paper course packets and ensuring students accessibility needs are met.
- The college might eliminate non-essential single-use plastics with viable alternatives.

Each of these projects is explained in more detail below.

Swag

All purchases made by Williams College are choices made by departments or individuals and serve as a representation of the college's values. The swag, promotional materials, or giveaways that we distribute send clear messages to current students, prospective students, families, and alumni about what is important to the college.

Swag can be important, too, as a thank you, to assist with name recognition of departments, student organizations, or campus initiatives, and to build a sense of community. The "[Guidelines for Sustainable Swag & Promotional Materials](#)" document is intended to help departments and groups reflect on their goals related to swag, think through alternatives, and reflect on how policies and practices might change to be more value-aligned.

The publishing and advertising of this guide with the support of CEAC will be accompanied by education and outreach to First Year students as well as to JAs, Housing Coordinators, and Registered Student Organizations and will raise the profile of swag as a campus waste issue. Lena Salamanca, Executive Assistant in the Provost's Office, has spent more than a year engaging with departments (starting with offices that have historically bought a lot of swag) to help them rethink their approach to swag. This individualized outreach will continue along with 2-3 Daily Messages per year to students, staff, and faculty plus continued efforts to integrate swag tips into training and onboarding for the aforementioned groups.

Course Packets

Unused course packets (those not picked up from Print Services or departments) constitute a sizable amount of paper waste each semester. Is there a way to responsibly reduce this waste?

CEAC waste subcommittee members, Print Services Manager Kim Brown, Chair of Biology Rob Savage, and Zilkha Center Zero Waste Intern Mafoudia Keita '24 considered how best to right-size course packet printing to reduce waste and cost from unused course packets.

The group focused on reducing or eliminating course packets printed but never picked up/opened. With that goal in mind, a solution was devised that would keep faculty preference as a priority, incorporate a student choice option, and ensure that student accessibility needs are prioritized. The group's proposed solution is as follows:

Faculty would choose (via CourseLeaf) what their preference is for offering readings to students for each of their courses. The options would include:

Printed Course Packets	GLOW-only (online)	Student Choice (Hybrid)
Request course packets be printed for all students at Print Services (PS). They will also continue to be posted on GLOW.	Readings will be posted to GLOW, which means a request will not be sent to PS to print course packets (unless students have an accessibility accommodation)	Either printed course packets or GLOW only works for the faculty members and the choice is passed on to the students

If a faculty member chooses “Student Choice (Hybrid)”, then students can choose to opt-in to having a course packet printed by checking a box when registering for each course in Workday.

The group is in conversation with the Registrar, OIT, and Student Financial Services about how such changes could best integrate into Workday and how to ensure that there would be no negative impacts to Student Financial Services. We have determined that further conversations are needed to continue to collect feedback on the idea as well as to determine how any changes might be operationalized into the next phase of Workday implementation.

Plastic

The Zilkha Center has been in conversation with Dining Services and Facilities about ways to eliminate and/or reduce non-essential single-use plastics for a number of years. In 2021/2022, the Zero Waste Action Planning Group, the Zilkha Center, and Dining Services began engaging with Post Landfill Action Network (PLAN) about their Break Free from Plastic Pledge, which is focused on non-essential, non-compostable single-use plastics with viable alternatives. Plastics used in Dining Services are the primary focus of the pledge.

Plastics Intern Brian Lavinio '24 has focused this spring on working with Dining Services' leadership and PLAN to clarify the requirements and current campus barriers to ensure that Dining would support the college signing on to such a pledge. In the past ten years, Dining Services has already phased out many single-use plastics and Associate Director of Dining Jeanette Kopczynski has outlined a path to eliminate the remaining items that don't currently have viable alternatives. Her team and Brian are also in conversation with 3-4 local / regional companies from whom Dining purchases products that currently come in plastic to understand if alternative packaging might be possible.

Commitment to the pledge, which requires a presidential sign-on, would send a strong signal that Williams is taking and will continue to take the current-day plastic crisis seriously.

[Williams College Break Free From Plastic Pledge Draft](#)

CEAC | BUILT ENVIRONMENT AND LANDSCAPING SUBCOMMITTEE
Final Report 2023/2024
Giuseppina Forte, Sarah Gardner, Timothy Roberts

This report synthesizes the key initiatives and concerns related to the campus's built environment and nature, including:

- Student-Centered Landscape Initiatives
- Campus Accessibility
- Campus Biodiversity
- Land Management
- Tree Management
- Landscape Management

Two critical observations we have made are:

- 1) Students increasingly desire to be more involved with landscape initiatives such as specialized gardens, tree plantings, and using the lawn areas for art for installations, performances, and events. These initiatives are welcome, but the sporadic nature of student involvement with garden upkeep and the need to coordinate uses of the campus landscape can result in difficulties. One possibility that could help address this issue would be to restore summer internships within the Grounds Department.
- 2) As noted in the Land Management section below, the administration could be more transparent and engage all stakeholders in constructive dialogue about proposals and decisions that affect land management practices.

In addition, the following recommendations are essential for moving our campus towards enhanced environmental stewardship and inclusivity:

Student-Centered Landscape Initiatives

- Educating students on soil types and planting techniques enables them to make informed decisions about what plants can thrive in our environment. This fosters a hands-on learning experience that extends beyond traditional classroom settings.
- For specialized gardens like pollinator gardens, which require regular upkeep and have been established at the behest of students, it is critical to ensure that students play a central role in their maintenance.
- Encouraging the use of lawn areas for art installations, performances, and events reinforces the campus's dedication to leveraging its green spaces for purposes beyond mere beautification. This approach can significantly enrich the campus's cultural and environmental fabric, transforming these green areas into vibrant social interaction, learning, and creative expression centers. Allocating dedicated staff members responsible for managing these seasonal events is essential to effectively implementing this strategy.

Campus Accessibility (DEI)

- Williams Facilities is collaborating with a third-party vendor to map building accessibility on campus. Jason Moran from Planning, Design, and Construction leads efforts to improve outdoor accessibility. This project is underway, and who and when can access this information should be clarified.
- Collaborating with the [Disabled Student Union](#), which may already be developing its campus accessibility map, is crucial. This partnership not only leverages the unique insights and experiences of students with disabilities but also fosters a more inclusive campus culture that prioritizes the needs and well-being of all its members.

Campus Biodiversity

- Enhancing campus biodiversity through strategically planting native species that require minimal maintenance will improve the ecological value of our campus.
- Improving educational signage in meadow areas not only serves as a learning tool but also enhances students' appreciation for local flora. Such initiatives invite curiosity and engagement, turning these areas into outdoor classrooms where the natural world becomes a source of endless discovery.
- Investigating the possibility of creating ecological labs and experimental plots featuring low-mow areas and meadows on campus to offer practical learning experiences. The [Williams Landscape Study by Reed Hildebrand](#) study should inform these initiatives, particularly those focused on the campus's outer edge, facilitating a hands-on approach to environmental education.

Land Management

- The committee carefully considered the Forest Legacy Project's proposal on Stone Hill, particularly about the College's 149-acre parcel off Cluett Drive, and viewed this proposal favorably. Before we could provide a report of our views, the Williams administration turned down this proposal and, regrettably, did not provide a rationale for their decision.
- We did not have time to provide a full review of a second proposal, to purchase a peat bog in Pownal to be administered as part of Hopkins Forest. We hope that the administration's response to the bog purchase proposal is carefully thought out and the process is transparent.
- This situation highlights the need for transparency in our decision-making processes and underscores the importance of fostering constructive dialogue between the administration and stakeholders regarding land management practices.

Tree Management

- The Williams Comprehensive [Tree Management Plan](#) and the [Tree Keeper system](#), developed by Davey Tree Co, present a thorough approach to tree care, including inventory and forward-looking management strategies. Williams College now has a [Tree Campus USA status](#).

Landscape Management

- Integrating the campus [Williams Landscape Study by Reed Hildebrand](#) with Landscape and Grounds operations is crucial for cohesive management and planning.
- External landscape companies should collaborate closely with Landscape and Grounds teams to align with campus standards and needs.

CEAC - Pedagogy Subcommittee Report

2023-2024

Jessica Fisher, Hikaru Hayakawa, Tanja Srebotnjak, and Heather Williams

Sustainability is one of the core values and “crosscutting commitments” embraced in the college’s strategic plan, though much remains to be done to make these commitments visible to every member of the community. Initially, the aim of our subcommittee was to hold conversations about this mission and to think together about ways of strengthening it. Our sense is that teaching around such issues happens not only in the classroom, but in the very way our community conducts itself. We therefore began by asking how we might better communicate the urgency of the moment, and how we might further strengthen teaching and research around the myriad issues that feed into the necessarily interdisciplinary climate, biodiversity, and waste/plastics crisis. We hoped to bring energy and clarity to these and related questions, so that we might come to occupy a campus where the entire community takes part in this crucial area of teaching and learning. What structures, we wondered, can we put in place now to ensure that all Williams students will graduate with an understanding of sustainability, climate change science, solutions, environmental and community resilience, and how to facilitate social change and civic engagement? How can we help all departments come to understand their teaching as adding a crucial element to the interdisciplinary learning necessary to address these crises?

The CEAC subcommittee on pedagogy met over the course of the year with many members of the campus community to ask these questions. In the course of our conversations, however, we came to see that the college needs not merely to work to put its own strategic plan into practice, but also to build common purpose among the many key stakeholders, including CES, ENVI, Zilkha, and CEAC.

Our recommendations are as follows:

1) More and better communication and coordination among entities on campus involved in environmental education and a commitment to do the work necessary to develop a shared vision around these issues.

For example, the strategic plan calls on the college to support “curricular development in areas such as climate science, environmental justice, agriculture and food systems, and sustainability in the arts and architecture;” to create “sustainability pathways through various majors and concentrations;” and to expand “opportunities for students to engage with climate change and the environment through internships, on-campus research and community projects.” Are these goals shared ones? If so, our subcommittee’s conversations with faculty, staff, and students suggest that all three of these goals need further institutional support.

2) Increased opportunities for interdisciplinary conversations around environmental education as well as support for instructors who wish to learn about bringing issues of the environment into their courses.

We spoke with Matt Carter, who is excited about having the Rice Center hold events that would address this recommendation. Administrative support for cross-disciplinary and team teaching of environmental and sustainability courses, perhaps similar to that provided for tutorials, would be desirable.

3) Communicating the shared vision of sustainability pathways through various majors and providing students and faculty members information about the opportunities available as internships, research endeavors, and community projects and course development grants.

Once a shared vision is established, the Communications Office will happily help to communicate it. They already have a button on the home page for [Environmental Studies and Sustainability](#); we imagine that site might do much more to make visible the various pathways available to students interested in the climate crisis, sustainability, and related issues as well as the opportunities for research, internships, course development grants, and so on.

4) Providing more opportunities for students to make a real difference in the college's sustainability efforts.

Recent budget cuts have impacted funding that supports student internships, research, and community projects. At the same time, some new opportunities have been created, including the Student Sustainability Fund, the Zilkha Center Winter Study Course (which asks students to design a project), and the REC revenue funding, which can be used to carry out student project proposals. Providing for and sustaining such opportunities and internships would seem a natural target for development office efforts.

Subcommittee on Environmental / Sustainability Policies

Tanja Srebotnjak

We identified the following potential topics and issues that could be addressed by college-wide policies or guidelines to promote sustainability or sustainable behaviors:

- Swag
- Single use plastics
- Course Packets
- Space heaters
- Microfridges
- Cryptocurrency mining
- Electric bicycles and scooters

Swag, single use plastics and course packet printing were addressed by the Subcommittee on Waste (*see pages 3-4*).

The **space heater** issue would benefit from guidelines for faculty and staff and a clear policy for students. The student policy essentially exists already and a proposal for faculty and staff is fairly advanced in its development (accessible [here](#)).

The question of how to manage **microwaves and minifridges (or microfridge combinations)** is challenging. The college provided microfridges to every student as part of COVID-19 mitigation measures and the lease runs through July 2027. No further discussion has taken place recently, but the issue should be considered in the future by the CEAC and/or by the Provost, VP of Finance and Operations, the Office of Residential Life, the Dean of Students, and the Zilkha Center.

Cryptocurrency mining is already de-facto regulated by the OIT policy on ethical and responsible computing and the Student Handbook's rules governing the use of college property. These policies and rules could be reviewed and potentially amended to explicitly address cryptocurrency mining using the college's computing equipment, network, and energy resources.

- Computing Ethics and Responsibilities: <https://oit.williams.edu/policies/ethics/> (also cross-listed in the [Student Handbook](#))
- Use of college properties: <https://campus-life.williams.edu/events/#use-of-college-property>

Electric bicycles and scooters represent an issue on which further research is needed. The challenge is to combine the environmental and health benefits of e-bikes and e-scooters with their safe charging, storage, and maintenance. The key aspects for the latter appear to be the use of compatible, manufacturer recommended batteries, charging cables and associated equipment. A secondary issue relates to the safe, weather-protected storage of e-bikes and e-scooters. More information on how other institutions are dealing with the issue could inform the college's approach, so this topic is recommended for further study by CEAC or as a student project (e.g., Zilkha Center interns or the Alhambra Student Consulting Group).

MOTION approved by the Faculty, December 6, 2023

To revise the charge and composition of the Campus Environmental Advisory Committee (CEAC), changing the text in the faculty handbook from:

Campus Environmental Advisory Committee (CEAC) (4-3-6)

The Campus Environmental Advisory Committee (3 Faculty-6 ex officio-3 Students) acts as a forum for communication among students, faculty, staff, and administrators on environmental matters; advises and works to develop policy on matters of environmental stewardship in the operation of the College; assists in developing relevant environmental resources and strategies for Williams; and fosters a sense of shared environmental responsibility among various constituencies and individuals on campus.

Appointed faculty membership includes the chair of the committee and two other faculty members, appointed by the Dean of the Faculty. Student membership consists of three students appointed by the College Council. The committee's ex officio members are the Director of Facilities Management, the Director of Design and Construction, the Director of Dining Services, the Director of the Zilkha Center for Environmental Initiatives, the Chief Technology Officer, and the Director of the Center for Environmental Studies.

The committee reports to the President of the College and to the college community as a whole. In keeping with the committee's mission, members of the college community may attend meetings at the discretion of the chair.

to the following:

Campus Environmental Advisory Committee (CEAC) (3-4-3)

The Campus Environmental Advisory Committee (3 Faculty-4 ex officio-3 Students) advises the President and College and develops policy proposals on matters of environmental and sustainability stewardship in the operation of the college.

Appointed faculty membership includes the chair of the committee and two other faculty members, appointed by the Dean of the Faculty. Student membership consists of three students appointed by the College Council. Faculty and student members serve staggered two-year terms. At least one student should have prior experience with sustainability issues.

Ex officio committee members are the Director of the Center for Environmental Studies, the Associate Director of the Center for Environmental Studies, the Director of the Zilkha Center for Environmental Initiatives, and the Provost (or a designated representative at the Associate Provost level); the latter two supporting the chair in setting the Committee's agenda.

RATIONALE

This motion aims to make the CEAC a more effective permanent faculty committee by (i) adjusting its charge and (ii) adjusting its composition.

Two of the four elements of the charge, the communication and the environmental community building functions, are already performed by two campus units, namely, the Center for Environmental Studies (CES) and the Zilkha Center for Environmental Initiatives (ZC). Student groups such as the Williams Environmental Council also contribute in this way. However, there is no other mechanism on campus through which faculty, students, and staff all engage together in environmental policy development. Therefore, the revised CEAC charge focuses on this broad objective.

With respect to composition, many of the CEAC's current ex officio members' expertise is not directly relevant to all of CEAC's regular committee work; they and others will be consulted, and their expertise included on an as-needed basis. Direct involvement of the Office of the Provost — charged with advancing

the strategic priorities and academic mission of the college primarily through the thoughtful and purposeful allocation of resources — would allow the CEAC to carry out its functions more effectively.

Finally, many of the issues that the CEAC engages with are technically complex and have a steep learning curve. In its current configuration, the three faculty and three student members of the committee change yearly. The resulting lack of continuity and the concomitant need to bring new members up to speed can cause momentum to dissipate. The ability to appoint faculty and student committee members to longer terms would help address these issues.

Introduction to Carbon Offsets and RECs at Williams College

notes on a presentation by Tanja Srebotnjak to the CEAC

Monday 4 March 2024

Present: Mike Evans, Jessica Fisher, Sarah Gardner, Hikaru Hayakawa, Oscar Newman, Tim Roberts, Tanja Srebotnjak, Heather Williams, Chris Winters

Williams College began discussing how to address its impact on global carbon emissions in 2007 with a goal of reducing emissions by 10%, compared to FY1991, by 2020. Efforts went into higher gear in 2015, when the college committed to reducing emissions by 35%, again compared to FY1991, by FY2020, and to achieve carbon neutrality by the end of 2020. It was clear that we could not reach “net zero” emissions and we would have to use other means – buying carbon offsets and renewable energy certificates – to achieve carbon neutrality on paper. A carbon offset working group was formed (see below) and developed recommendations for purchasing offsets, starting in FY20, to achieve neutrality, continuing until we reach net zero emissions.

Carbon Offsets

One carbon offset is the equivalent of one ton of CO₂ removed from (or not added to) the atmosphere. Purchasing an offset means paying someone else to remove or reduce carbon dioxide.

In 2017 CEAC formed a working group to generate guidelines for purchasing “high quality” carbon offsets. The criteria are best summarized by the acronym “PAVER”.

- P = the reduction is permanent; it does not revert to producing or failing to cut emissions;
- A = the reduction is “additional”; beyond what would have occurred without the project that generates the reduction in emissions (for example, if deforestation in a project area is the same as in a control area, there is no additional reduction);
- V = the reduction in emissions is verifiable; it can be checked and measured;
- E = the carbon offset is enforceable; it cannot be sold twice, once to Williams and once elsewhere, and it is subject to the force of law;
- R = the project that results in reduction of emissions is real. Sadly, some projects are scams.

The college has been purchasing its offsets through a broker, Cool Effect. Most of the projects (perhaps all but one) have been overseas, and we cannot go and check on them; there is effectively no way to verify that our purchases of credits have resulted in reduced emissions. This means that the college is risking both its reputation and its money.

Decisions about which offsets to purchase are only as good as information about the projects. Often the groups that certified projects were paid by the project managers, setting up a conflict of interest. Although it is more expensive for the college, using certification groups that are paid by the purchasers of offsets is preferable, both because the conflict of interest is avoided and because we can hold the certifiers accountable.

A second important concern is how we are and how we should be measuring our emissions, so that we purchase the correct amount of offsets. Emissions can be divided into three categories, or scopes:

Scope 1: Direct emissions – the emissions the college has direct control over.

Scope 2: Indirect emissions associated with purchasing electricity.

Scope 3: All other indirect emissions, including those associated with embodied carbon in products, services, and construction, college-related travel, food, waste, electric power and transmission losses, etc.

Although it is difficult to measure many of the scope 3 emissions, some of them are tractable. For example, embodied carbon in the form of emissions produced by the construction of new facilities and

their components can be accounted for during the design and construction process. The most substantial form of emissions that are also difficult to measure are those associated with our endowment. We do not know what is “in” the endowment; the investment office does not provide reports on what we are investing in, and in fact may not know. In part this is because they choose portfolio managers rather than choosing investments, and the managers do not disclose what they are investing in because that would be giving away the secrets of their expertise. We are not yet fully divested from fossil fuels; we are letting investments in portfolios complete their contracted life, while avoiding initiating any new investments in fossil fuels. The problem of the amount of carbon emissions associated with our investments will still remain even when we are fully divested from fossil fuels because the companies we invest in produce carbon emissions. Some possible sources of better information are the “green finance” international groups that try to address and quantify the issue of individual companies’ emissions. There is also a proposed SEC regulation that would require managers to disclose information about emissions of companies associated with their funds; if that regulation is adopted, it could help.

The college has a responsibility to know where both our carbon footprint comes from and its actual size. As things stand, the “financed emissions” arising from the enterprises that the endowment is invested in are not accounted for, and there are a few additional scope 3 categories whose emissions are not measured. This lack of information means that Williams College cannot be fully offsetting its scope 3 emissions. It is hard to see how we can make progress on the financed emissions issue unless some changes are made to how the endowment is managed and/or reported.

Some factors may reduce our scope 3 emissions over time. If other entities move towards reducing, accounting for, and offsetting their scope 1 and 2 emissions, our scope 3 emissions will fall correspondingly. Over time, the price of carbon offsets should rise, which should provide an additional impetus for reducing carbon emissions across the entire economy. In the meantime, moving towards net zero is important. If we produce a net of no carbon emissions (including an estimate of all scope 3 emissions), it which would mean that we would not need to buy carbon offsets, and so we would not be in the position of using our institutional wealth to buy our way out of our carbon emission problem.

In the meantime, moving towards net zero involves our energy and carbon master plan, using science-based targets that are in line with the Paris Agreement. Unfortunately, the test wells for geothermal energy at the site for the new WCMA building were not promising, although there are other possibilities. We also need to think about investing locally and directly, perhaps as part of a consortium (without using a broker), and use an outside auditor to check on those investments. Local investments would also have the advantage that they could contribute to the educational mission of the college.

RECS (Renewable Energy Certificates)

One REC corresponds to 1 MWh of clean electricity (and so can only be applied to offsetting emissions that fall under scope 2). RECs can be “bundled”, meaning they directly supply electricity to the college, or “unbundled”, meaning they are not directly tied to electricity consumed by the college. RECs only help us in terms of offsetting our emissions if they cancel out electricity produced by fossil fuel, but the number of RECs may not be identical to the amount of CO₂ associated with the electricity we consumed that needs to be canceled out because a REC is not tied to a fixed, specific amount of CO₂. There is also the possibility of double-counting, as there is for carbon offsets.

It is better to have “behind-the-meter” energy production, tied to a local campus grid. If we do this, we can also maximize efficiency in other ways, such as by storing energy on site to be used during peak demand periods (which is also more fiscally responsible).