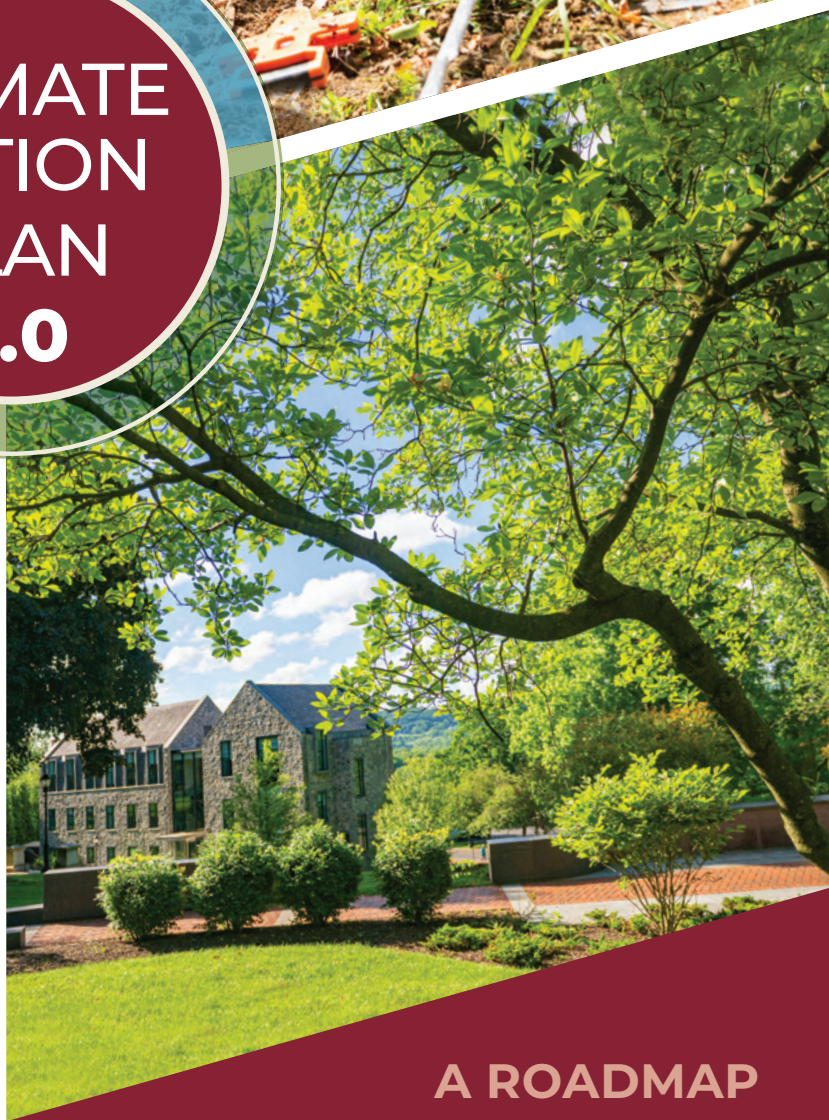




CLIMATE
ACTION
PLAN
3.0



A ROADMAP
FOR MITIGATION,
ADAPTATION,
AND RESILIENCY

LAFAYETTE
COLLEGE

LAFAYETTE COLLEGE

CAP 3.0

Table of Contents

SECTION 1	Letter From President	1
SECTION 2	Why Now	2
SECTION 3	Acknowledgements.....	4
SECTION 4	Executive Summary.....	6
SECTION 5	Vision & Principles	8
SECTION 6	Progress to Date: Climate Action Plan 2.0	9
SECTION 7	CAP 3.0 Development Process.....	16
SECTION 8	GHG & Resiliency Baseline	20
SECTION 9	Resiliency & Adaptation Priorities.....	24
SECTION 10	Road Map to Carbon Neutrality	28
SECTION 11	Conclusion.....	58
SECTION 12	Glossary	59
SECTION 13	Accountability Metrics.....	62
SECTION 14	Appendixes	64

SECTION 1

MESSAGE FROM THE PRESIDENT

Lafayette's commitment to sustainability is a commitment to our future. For more than a decade, our Climate Action Plans have challenged us to reduce our environmental impact and to consider how a changing climate affects our campus, our community, and the world our students will inherit.

Climate Action Plan 3.0 builds on that history while recognizing that meaningful climate action requires both ambition and accountability. We are proud of the progress Lafayette has made, and we are equally committed to learning from the goals we have not yet achieved. CAP 3.0 gives us an opportunity to strengthen our approach, accelerate our work, and prepare our campus to be more resilient in the face of a changing climate.

Our path to carbon neutrality by 2035 will require transformation across our campus, from the energy that powers our buildings and the way we travel, to the ways we design, build, teach, learn, and make decisions. This work reflects Lafayette's value of Purposeful Sustainability and our responsibility to act with care for one another, our community, and generations to come.

As a liberal arts institution with distinctive strengths in engineering, civic engagement, and experiential learning, Lafayette is uniquely positioned to connect knowledge with action. Our students are not simply preparing to enter a changing world; they are preparing to help shape it. CAP 3.0 invites all of us to be part of that work.



I am grateful to the students, faculty, staff, administrators, trustees, and alumni whose ideas, expertise, and persistence have shaped this plan. Together, we can turn our commitments into meaningful action and continue Lafayette's tradition of thoughtful, purposeful leadership for a more sustainable and resilient future.

President Nicole Hurd

WHY NOW?

As we celebrate Lafayette College’s bicentennial, we reflect on our long-standing history, while also looking forward to ambitions that will define our future. Lafayette has a strong history of environmental leadership, with our very own student club, Lafayette Environmental Awareness and Protection (LEAP), hosting the College’s first Earth Day celebration in 1970 with a community cleanup. Since signing the American College and University Presidents’ Climate Commitment (ACUPCC) in 2008, Lafayette’s focus on climate emerged. This spurred us to establish an annual greenhouse gas emissions inventory, develop a Climate Action Plan (CAP) 1.0 in 2011, complete a campus-wide energy audit, establish an Office of Sustainability in 2016, and in 2019, develop CAP 2.0 for reaching carbon neutrality by 2035. The dedication of passionate students, faculty, staff, alumni, and community members catapulted our efforts to new heights.

In the past few years, Lafayette has been focused on developing a robust Strategic Plan and Campus Master Plan, and sustainability has been elevated time and time again as a key theme that must be woven throughout each and every element—from infrastructure and operations, to academics and research, sustainability and climate action is and must continue to be a part of who we are as a dedicated value of the College.

As responsible members of our local, regional, and global communities, with respect to original inhabitants and practices of the region, it is vital to take responsibility for our impact. It is imperative that we reduce our emissions to curb the negative effects of climate change and evaluate resiliency strategies. Our changing planet affects our ability to continue to do what we love on this campus and support our partners in Easton and across the globe. We must reduce emissions because it is our responsibility to account for our actions and improve upon them, as we do in all aspects of campus life. This plan is not just a road map, it is a crucial undertaking for the future health of the Lafayette community.

As poignantly stated in CAP 2.0 these solutions are not only “the right thing to do—they are the strategic thing to do.” Many of our peers have adopted solutions and were recognized for their achievement of carbon neutrality in 2019, and that list continues to expand today in 2026. In order to remain competitive, we must continue to strive for our goals and achieve them, while also remaining consistent with our mission to help “Lafayette students become critical thinkers, creative problem-solvers, and responsible citizens of the world.” The distinct Lafayette education elevates us among our peers and is what draws excellent students to the remarkable education that Lafayette can provide, bringing faculty and staff to the unparalleled working environment and growth opportunities unique to this institution.

Unlike other companies or organizations working to take climate action, we are uniquely situated as an institution of higher education to not only reduce emissions, but to integrate these solutions into the academic mission of the College. **With a robust curriculum that weaves sustainability into diverse contexts and many faculty conducting research in sustainability spaces, Lafayette has expertise that can be leveraged for experiential learning inside and outside of the classroom.**

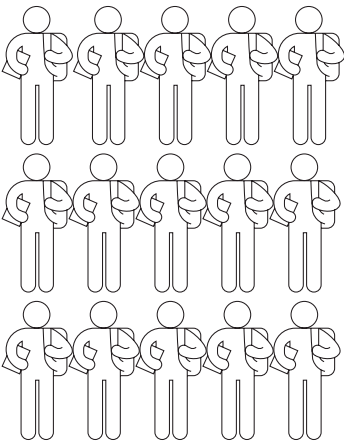
70%
of departments conduct sustainability research

72%
that offer courses with sustainability-focused or inclusive content



We can continue to expand student learning and exploration into each climate solution we apply, utilizing campus as a living laboratory. In many cases, as you will see in this plan, we have the chance to do something completely novel. Newness presents opportunities and challenges from which students can learn and become involved, ensuring the next generation of students is ready to take on the climate challenges and careers of the future. We can continue to foster a rich learning environment tying students to the ecosystems in which they live.

The Office of Sustainability has worked with partners across the College, community, and alumni network to develop a community-generated plan to achieve carbon neutrality by 2035 and create solutions for climate adaptation. The result is this comprehensive plan that lays the road map to achieving our goals. **This plan is a living document guiding the actionable next steps to implementation, which will require intensive collaboration from various stakeholders across the College to be successful.** We look forward to your partnership as we achieve our goals outlined in the following pages.



10-15 sustainability tours per year for perspective students and their families

ACKNOWLEDGEMENTS

Lafayette College’s CAP 3.0 was created through the collaboration of over 300 students, faculty, staff, alumni, parents, community members and The Board of Trustees throughout the 2025-2026 academic year. After data collection and analysis during summer 2025, 46 open stakeholder engagement meetings were held over seven multiday on-campus and virtual sessions from September 2025 to March 2026. Involved in the process were 23 administrative departments, 11 faculty departments, and 13 majors in a wide swath of representation from across the College, providing valuable insight from their points of view and expertise. In addition, 16 alumni and community members provided their feedback throughout the process.

Feedback was collected via in-person and virtual discussions, online forms, and workshops. Materials were provided online and in a monthly newsletter for those who were unable to attend scheduled events, to ensure all input was possible from diverse stakeholders.

Additionally, Steering and Advisory committees were formed to give expert feedback on the direction of plan development and proposed solutions. Focus groups were created in the winter and spring to ensure key stakeholders’ voices were heard in their respective areas of influence.

We are extremely grateful for the level of participation and dedication to this process to ensure a community-based, actionable plan for the College.

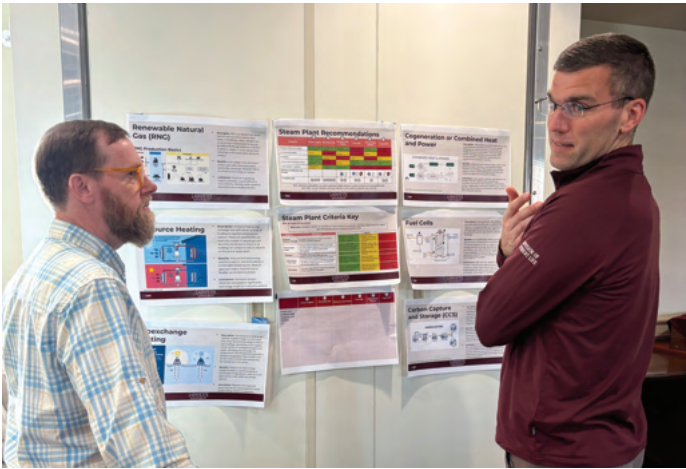


STEERING COMMITTEE

- David Brandes** – Chair of Integrative Engineering
- Mike Chovanes** – Director of Facilities
- Samantha Comas** – Sustainability Outreach and Engagement Manager
- Conner Elliott** – Climate Action and Circularity Manager
- Audra Kahr** – Executive Vice President for Finance and Administration
- Geoff Labe** – Assistant Vice President of Operations
- Laura McGrane** – Provost and Chief Academic Officer
- Delicia Nahman** – Director of Sustainability
- Julia Nicodemus** – Associate Professor of Engineering Studies
- Lindsay Soh** – Associate Professor of Chemical and Biomolecular Engineering and Department Head

ADVISORY COMMITTEE

- Thor Banks** – Director of Residence Life
- Millie Barry** – Academic Project Coordinator
- Derrick Brown** – General Manager of Lafayette Dining
- Benjamin Cohen** – Professor and Chair of Engineering Studies
- Valerie Downing** – Associate Vice President for Individual Giving
- Krista Evans** – Dean of Admissions
- Andrew Foster** – Senior Associate Athletic Director for Facilities and Operations
- Dru Germanoski** – Van Artsdalen Professor of Geology and Environmental Geosciences
- Emily Graf** – Web, Graphic, and Interactive Designer
- Gabby Hochfeld** – Assistant Director of Intercultural Development and Coordinator for Gender and Sexuality Programs
- Tom Iannelli** – Procurement Director
- Holly Lantos** – Assistant Vice President of Budget and Analytics
- Hongxing Liu** – Associate Professor of Economics
- Sue Newquist** – Associate Director of Admissions for Campus Visitation and Events
- Josh Parr** – Manager of Food and Farm
- Mark Sapara** – Associate Vice President and Senior Adviser to Vice President for Student Life
- Amy Van Asselt** – Assistant Professor of Mechanical Engineering
- Mary Wilford-Hunt** – Senior Associate Director of Corporate, Foundation, & Government Relations; retired
- Jasmine Williams** – Student ERM Extern



Focus groups were also developed to take a deeper look at the topics of Decarbonizing Heating, Cooling, and Hot Water; Waste; Transportation; General Procurement and Construction; Food Procurement; and the Metzgar Campus. We thank the members of these committees for their additional time and expertise to develop this plan.

We also want to thank the wonderful student clubs, courses, and our community partners at the City of Easton, Greater Easton Development Partnership, and Nurture Nature Center for their contributions. We are grateful to ERM for its guidance and support during this process.

EXECUTIVE SUMMARY

Lafayette College's Climate Action Plan (CAP) 3.0 affirms the College's long-standing commitment to sustainability and outlines a comprehensive pathway to achieve carbon neutrality by 2035, while strengthening campus resilience to the impacts of a changing climate. Building on more than a decade of climate leadership, including the progress and lessons of CAP 1.0 and 2.0, CAP 3.0 reflects both the urgency of the climate crisis and Lafayette's responsibility to lead through action, education, and collaboration.

Since establishing its first CAP in 2011 and updating its strategy in 2019, Lafayette has made progress toward reducing greenhouse gas emissions, improving energy efficiency, expanding renewable energy use, and integrating sustainability into the academic and co-curricular experience. Nonetheless, due to external and internal factors detailed in our Progress to Date section, several goals and targets from CAP 2.0 were not achieved. CAP 3.0 assesses our progress, and responds

to evolving conditions, including new emissions sources, updated data and methodologies, and increasing climate-related risks affecting the campus and surrounding community.

CAP 3.0, in alignment with our newly adopted Strategic Plan, outlines a coordinated set of strategies across energy, buildings, transportation, waste, and campus operations to continue emissions reduction. The plan elevates a resiliency strategy, recognizing that reducing emissions alone is not sufficient, and climate adaptation is essential to Lafayette's educational mission. CAP 3.0's solutions require the College to transform its operations, work that we will prioritize through seeking new dedicated sources of funding. Progress toward carbon neutrality is in direct alignment with our Institutional Value of "Purposeful Sustainability," a commitment demonstrated by students, faculty, staff, and administrators alike in our teaching, research, actions, and decision-making.



The following is a brief overview of the key elements of the proposed Climate Action Plan.



Key Goals

REACH CARBON NEUTRALITY BY 2035: This updated Climate Action Plan provides a road map for reaching carbon neutrality by 2035, with an emphasis on the initial steps for implementation. In addition to annual greenhouse gas reporting, the College will continually invest in and assess progress toward carbon neutrality and update the CAP every five years.

..... ✓ **Immediate Term (2026-2028)**

LAYING THE FOUNDATION

The immediate term focuses on advancing actions that can be initiated quickly using existing resources, governance structures, and institutional momentum. During this phase, Lafayette will prioritize integrating this plan with the Campus Master Plan and Strategic Plan, and socializing it with stakeholders around campus. Key efforts include refining targets and pathways, strengthening data collection and monitoring systems, and commissioning engineering studies for the infrastructure we plan to upgrade.

..... ✓ **Near Term (2029-2031)**

SCALING PROVEN STRATEGIES

The near-term phase centers on scaling strategies that are already underway or have been validated through planning and pilot efforts. During this period, Lafayette will accelerate emissions reductions through targeted investments, operational changes, and programmatic expansion. Actions in the near term emphasize the adoption of decarbonization strategies across energy, buildings, transportation, and waste. These actions include sourcing renewable energy projects and on-site solar to accommodate electrification, and developing a plan for EV charging infrastructure installation. In this phase, we also plan to develop policies for sustainable air travel, construction, and sustainable food procurement. In parallel, we will advance climate resilience and adaptation measures, embedding them more consistently into campus planning for key infrastructure upgrades like our parking lots and major building renovations.

..... ✓ **Medium Term (2032-2035)**

ADVANCING TRANSFORMATION AND ACCOUNTABILITY

The medium-term phase represents a transition from incremental progress to deeper, institution-wide transformation. In this phase, Lafayette will pursue more complex and capital-intensive strategies necessary to achieve carbon neutrality by 2035, while continuing to strengthen resilience to climate vulnerabilities. Efforts during this period focus on fully integrating climate action into Metzgar's construction and completing both the steam plant and our fleet transition away from fossil fuels. The medium term positions Lafayette to sustain momentum, adapt to new challenges, and ensure that climate action remains central to the College's mission and operations.

Conclusion

CAP 3.0 is both a strategic road map and a living framework. It establishes clear goals and provides mechanisms for tracking progress, reporting transparently and adapting over time. Through CAP 3.0, Lafayette recommits to climate leadership rooted in its values as a liberal arts institution with distinctive strengths in engineering, civic engagement, and experiential learning, preparing students not only to understand climate change, but to help solve it.

VISION & PRINCIPLES

Building on the groundwork laid by CAP 2.0 with feedback from members of the Lafayette Community in listening sessions, as well as the feedback from the Steering and Advisory committees, we began to articulate the urgency and distinctiveness of the Lafayette commitment to climate leadership through our unique vision and principles.



Vision:

We are a global leader in climate action that sets and achieves bold goals, embeds sustainability into all aspects of campus life, and engages our Lafayette community in the continued journey to authentic carbon neutrality.



Principles:

- 1 Align our operations with planetary boundaries:** Transform our operations by using long-term systems thinking and life-cycle analysis to enable high-biodiversity and low-carbon practices that minimize climate risk, increase environmental stewardship, and result in broader benefits for the world.
- 2 Elevate experiential learning:** Foster robust curricular and co-curricular campus experiences that invigorate future climate leaders and strengthen the knowledge and skills required to help the community they are members of adapt to and mitigate climate change, now and in the future.
- 3 Enhance teaching and scholarship:** Prepare students across all disciplines to make meaningful climate contributions to society and provide faculty and staff with the resources that empower them to leverage their expertise to solve emerging climate challenges.
- 5 Collaborate on community-centered solutions:** Enable just and inclusive climate and nature-based solutions that extend beyond campus to catalyze local, regional, and global community action.
- 6 Ensure transparent and inclusive decision-making:** Promote transparent decision-making processes, diverse perspectives, and robust accountability in pursuit of climate and ecological strategies.

Alignment between the newly created Strategic and Campus Master plans and CAP 3.0 will ensure cohesive implementation. Please see Appendix A for a detailed mapping of these intersecting plans.

PROGRESS TO DATE

Climate Action Plan 2.0

Lafayette College committed to carbon neutrality in 2008 when President Daniel Weiss signed the American College and University Presidents' Climate Commitment. This led to setting the goal of emissions reduction by 60% relative to 2007 levels by 2039. The College then began to conduct an annual inventory of its greenhouse gas (GHG) emissions and agreed to review and update a comprehensive CAP every five years, with the first CAP being released in 2011, including recommendations for new academic programs and operational priorities to conserve energy and reduce emissions. In 2019, the College recognized

the urgency of climate challenges and, with the release of CAP 2.0, committed the College to achieving carbon neutrality by 2035, instead of 2050. With this updated plan came new goals and strategies to reduce energy use in buildings and facilities, minimize waste, promote green transportation, and ensure curricular integration.

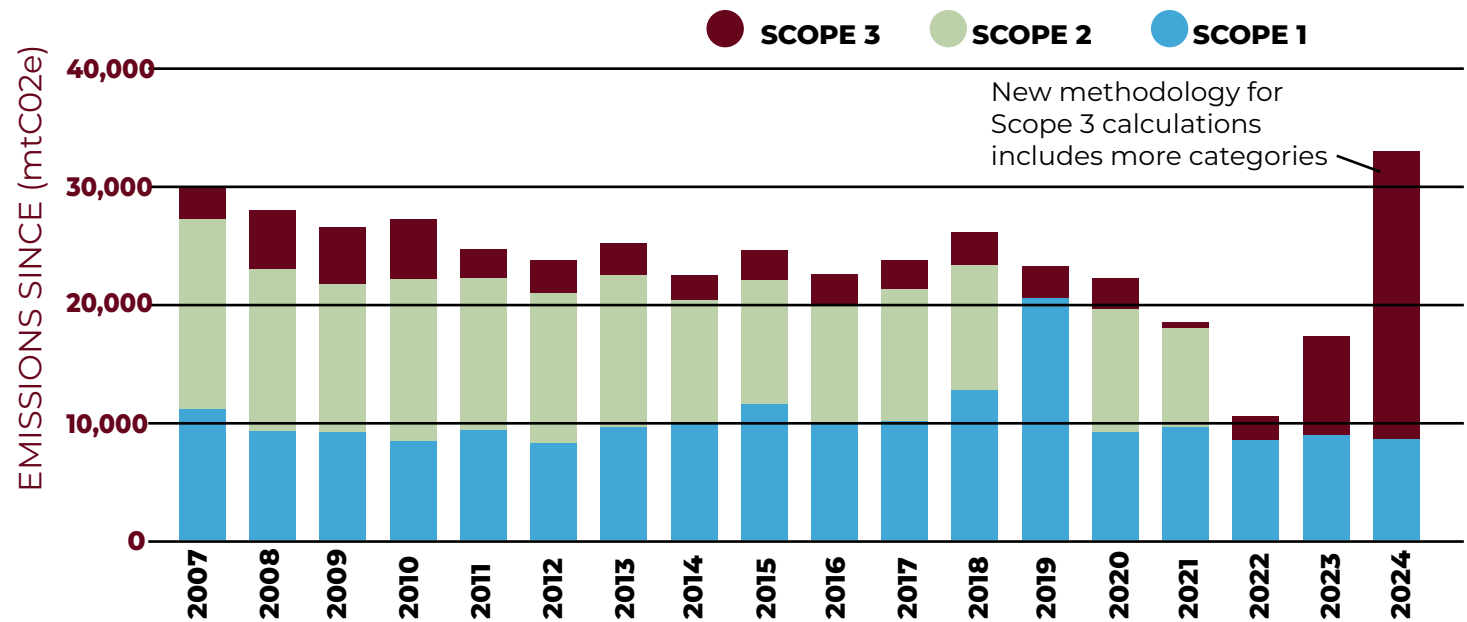
Between the commitment to carbon neutrality in 2008 and the launch of CAP 2.0 in 2019, we are proud to report on many program expansions and projects that were completed to further climate action, academic integration, waste reduction, and community engagement.





Carbon Reductions, Renewables, and Energy Efficiency

EMISSIONS SINCE 2007



Market-based emissions over time

Overall since 2008, the College has recorded a 68.60% decrease in market-based greenhouse gas emissions for scopes 1 and 2, and 184.76% “increase” in scope 3 due to more advanced data collection and analysis on additional categories of impact. We will go into more detail on changes to accounting in Section 8: GHG and Resiliency Baseline.

CAP 2.0 (2019) stated a goal of “investigating renewable energy options,” which included both on-site and off-site renewable energy options. **In 2021, an on-campus 0.5 megawatt solar array was installed on Kirby Sports Center, offsetting 9,625 metric tons of carbon dioxide over its lifetime (around 30 years). In 2026, 100% of scope 2 emissions have been offset by a Power Purchase Agreement for Renewable Energy Credits from an off-site solar array in Kentucky (20,000 megawatts specifically for Lafayette), built in collaboration with eight other colleges and universities.**

Additionally, **CAP 2.0 recommended the establishment of a Green Revolving Fund, which went into place in 2019** and to date has funded projects that have saved 500 metric tons of carbon dioxide equivalent annually through the installation of LED lights throughout 12 campus buildings and smart meters at 14 buildings. CAP 2.0 outlined a strategy for revising the building guidelines so that all new buildings and major renovations meet Leadership in Energy and Environmental Design (LEED) Silver certification design criteria, and to date the guidelines have been adopted and two new buildings were built and certified Silver by the LEED framework.



Academics and Research

The curricular experience has been a key component of both CAP 1.0 and 2.0 and continues to be a key focus throughout 3.0 as we work to ensure our academic mission is central to the sustainability and climate work we do. **Currently 72% of departments offer courses with sustainability-focused or inclusive content, totaling 165 unique courses, and 70% of departments conduct sustainability research.** Since CAP 2.0, a “Sustainability” attribute has been added to the Common Course of Study that will come into effect for the Class of 2028. The Campus as Lab program has more formally launched with expansion of class collaborations with the Office of Sustainability and the Lafayette College Farm and Community Garden (LaFarm) for hands-on learning and research applications. For example, in 2025, more than 30 courses incorporated the Office of Sustainability and/or the farm into their coursework.

Additionally, in the 2024-2025 academic year, the College established an Environmental Justice Working Group, a community of practice to create space for scholarly interaction with environmental justice, foster scholarship and research, encourage more attention on the topic in the classroom, and integrate more programming on environmental injustice into campus activity.



Transportation

Transportation was a key element in CAP 2.0 and continues to remain a category of interest for emissions reduction, visibility, and accessibility on and off campus. The College now has over 15 electric vehicles (EVs) in its campus (including lawn mowers) and dining fleets. A total of nine EV chargers have been installed for public use to encourage the adoption of EVs for commuting and transit. Skillman Library has also launched a bike-borrowing program through its Life Library lending program, so that students can borrow bikes for free to travel on or off campus. Additionally, the College has expanded and enhanced data collection for study abroad travel, including a website that lists recommendations to students who are traveling internationally to decrease travel emissions. The College is in the process of developing country- and region-specific sustainability guidelines and recommendations to help students acclimate to the sustainability practices of that area before and during their time there.





Circular Economies, Zero Waste, and Sustainable Food Loop

CAP 2.0 outlined a goal of diverting 60% of waste from the landfill by 2035. **To date, 26% of campus waste is diverted from the landfill (up from 14% in 2019) with the expansion of specialty recycling, composting, construction recycling, and reuse programs.** In CAP 2.0 a goal was to expand composting operations, and since then, a new compost vessel has been purchased, allowing the student team to collect, on average, 35,000 pounds of food waste yearly from dining locations, select offices, and designated residence halls. Finished compost is brought to LaFarm to amend the soil in order to increase nutrients, and the new vessel has capacity to process even more food waste, providing the opportunity to expand food waste collection campus-wide. Other achievements in waste-reduction initiatives include Green Move Out, which collects 10-15,000 pounds of items yearly and distributes them to local nonprofits and to the community through a new pay-what-you-can sale in downtown Easton, and a new Campus Thrift Store that redistributes 1-2,000 items yearly. In collaboration with Dining, four zero-waste initiatives were launched to decrease single-use items on campus (Reusable Clamshell Program, ECO smoothie cup, reusable plates in catering, reusable mug/bowl discount) as well as Leopard Leftovers, a program to decrease food waste after events and increase food

access, which has over 1,200 students, faculty, and staff members. To reduce plastic water bottle use on campus, 20-plus new refill stations were installed. And we continue to grow the athletics-sustainability partnership through targeted sporting events and waste audits each semester, with tangible recommendations and collaboration opportunities identified and shared.

LaFarm, which is identified in CAP 2.0 as a key component in faculty-student collaborations outside of the classroom, continues to expand, with 24,000 pounds of produce being grown and distributed to dining halls and the local community in 2025 alone. Production and learning capacity were enhanced in 2022 through the construction of a new 1,400-plus-square-foot greenhouse. LaFarm's expansion is a model for campus and the community on local systems supporting emissions reduction from miles traveled and hyper-local, regenerative food production.



Campus Engagement

Climate action cannot be completed in a silo. As stated in previous CAP materials, it is key to have cross-departmental and interdisciplinary collaboration in order to achieve our goals.

Because of this, since 2019, the College has launched five new programs aimed at targeted focus areas for sustainability improvement: Green Labs, Sustainable Office Program, Sustainable Living Certificate, Green Events Certification, and Green Teams. In addition, the Office of Sustainability, clubs, and departments host over 60-80 campus events per year focused on biodiversity, food sourcing, community service and education, waste reduction, and more, to engage a broader campus community in sustainability challenges.

Student leadership development has always been an integral part of how the Office of Sustainability operates, now offering 65-plus paid opportunities for students to engage in sustainability and apply their knowledge to environmental challenges on campus to advance Lafayette's sustainability goals. This includes 19 students in the newly revamped Eco Reps Leadership Program, a peer-to-peer educational initiative to increase sustainable actions and awareness in residence halls.

Beyond the Office of Sustainability, nine-plus student clubs are focused on sustainability awareness, food access, exploring nature, EVs, and more, as well as a dedicated Sustainability Committee on Student Government and one sustainability-themed living/learning community. One student club, the Food Recovery Network, continues to collect and donate prepared foods on a weekly basis, diverting over 7,000 pounds in the 2024-2025 academic year.

Lastly, because of the increased emphasis on sustainability and interest from prospective students, the Office of Sustainability, in collaboration with admissions, has created a student-guided and self-guided sustainability tour. About 100 participants take the student-guided tour yearly, some of whom sign up through an online portal and others who join through a featured day such as "Fridays at Lafayette" or "Experience Lafayette College." Over 10 prospective students are also engaged yearly through the weeklong summer Sustainability Leadership Program for high school students. This interest in prospective students in sustainability has grown, and we are enhancing our offerings to ensure they have the information they need to learn about sustainability at Lafayette.



CAP 2.0 Goals Still in Progress

That being said, there were goals outlined in CAP 2.0 that have not been met for several reasons. Some reasons include that timelines and resources available were impacted by COVID-19, there was leadership turnover, not all financial resources were successfully secured, and some of our efforts to achieve our goals were unsuccessful, meaning we attempted to take action but it turned out not to be the right solution despite the original commitment. Leveraging our achievements and taking a moment to assess our previous goals is why we now have a CAP 3.0 that is updated, refined, and more based in data-driven decisions.



- 1 Secure financial support:** In 2019, it was stated that many of the outlined goals were dependent on financial support. As with any plan, projects are dependent on financial resources. Our advancement team remains committed to supporting CAP 3.0 goals.
- 2 Buildings and facilities energy use:** One method that was recommended in CAP 2.0 was to explore offsets for emissions reduction. Lafayette has decided reducing direct emissions should remain a priority in advance of purchasing offsets, and so we plan to explore this option once all other strategies have been considered and implemented. (Section 10: Road Map to Carbon Neutrality has more details on offset strategy.) CAP 2.0 also set out to achieve carbon neutrality at Metzgar Fields by 2025. Due to the Campus Master Plan's revisioning of Metzgar Fields, we plan to reevaluate this scope and reinstate this goal in CAP 3.0. And lastly, CAP 2.0 suggested investigating transitioning campus heat and water generation by 2025, which will now be incorporated in significant detail in CAP 3.0 in the pages that follow.
- 3 Minimize waste:** CAP 2.0 also set out the goal of ensuring recycling and trash bin co-location in every location on campus, much of which was accomplished but continues to be a goal through conversations with Facilities. Lafayette has not yet done a full waste assessment and waste management plan that would streamline day-to-day operations and create uniformity of waste infrastructure, signage, colors, and co-location standards. We believe this is a prerequisite to increasing trash and recycling diversion rates across campus.
- 4 Transportation:** CAP 2.0 set a recommendation of providing information about travel offsets for business travel and study abroad, which currently we have addressed through recommendations for direct emissions reduction, rather than offsets.
- 5 Curricular integration:** A goal of CAP 2.0 was to hire two dedicated faculty members in addition to the existing two into the environmental sciences and studies (ES&S) program, and Lafayette has since added one faculty split between ES&S and biology. Additional funding and support is needed to support the growth in this program. Graduating class sizes in these majors has doubled (from 13 to 26 majors) between 2020 and 2025, and a total enrollment by course affiliation increased 35% in that same time period. With 65 declared majors as of spring 2026, ES&S is now one of the largest interdisciplinary programs on campus, following neuroscience (NEUR, 103), integrative engineering (IntE, 82), and international affairs (IA, 71).

CAP 2.0 outlined a number of goals between 2026 and 2035 that were revisited, revised, and have been reevaluated in CAP 3.0. Those include afforestation, offset strategy, emissions from campus heat and hot water generation, and waste management plan. You can find these goals in the pages that follow with new pathways for success.

As you will see in this plan, there are many areas where CAP 3.0 will underscore the importance of CAP 2.0's original goals and will also adopt new goals that have grown in importance to our mission. For example, neither CAP 1.0 nor 2.0 evaluated adaptation and resiliency in their recommendations and goals, which, as you will see, is a core component of CAP 3.0. It is imperative we move forward knowing the following goals and strategies in CAP 3.0 are a key component to the success of Lafayette College to remain a leader in the space and enact solutions vital to our operations and academic mission. While we recognize several goals outlined in CAP 2.0 were not achieved, it is our intention to move forward considering what hindered their success and proactively seek collaboration, funding, supporting data, and guidance in new ways to achieve these pivotal goals.



CAP 3.0 DEVELOPMENT PROCESS

Lafayette College developed CAP 3.0 to build on the progress achieved under previous climate commitments and to respond to evolving climate, regulatory, and institutional conditions. Since the adoption of CAP 2.0, Lafayette has made significant advances, most notably achieving 100% renewable electricity through a combination of on-site and off-site solar energy. At the same time, campus growth, infrastructure electrification, and an expanded understanding of climate risks and scope 3 emissions underscored the need for an updated, more comprehensive strategy to remain on track for carbon neutrality by 2035 and to strengthen campus climate resilience. To develop this CAP, we embarked on a massive stakeholder engagement campaign reaching over 300 students, faculty, staff, alumni, and community partners in 46 open meetings to solicit feedback and direct input on this Climate Action Plan. The following sections summarize the phases and timeline for updating our Climate Action Plan over the course of academic year 2025-2026.



CAP 3.0 stakeholder engagement timeline							
Sustainability Principles & Vision (SEPTEMBER) Establish CAP 3.0 Vision and Principles to guide planning process.	Baseline GHG Inventory/Sustainability Progress/Resiliency Assessment (OCTOBER) Educate campus about CAP 2.0 progress, climate resiliency assessment and insights, and overall sustainability performance.	GHG Strategy & Vulnerability Recommendations (NOVEMBER) Present initial decarbonization, resiliency, adaptation targets, and strategies for discussion and feedback.	GHG Strategy & Vulnerability Review (DECEMBER & JANUARY) Review final targets, goals, and strategies related to decarbonization, resilience, and adaptation.	Final GHG Strategy & Vulnerability Review (FEBRUARY) Review final targets, goals and strategies related to decarbonization, resilience, and adaptation.	CAP 3.0 Draft Review (MARCH) Present full CAP 3.0 draft to campus for feedback.	CAP 3.0 Celebration (APRIL) Share what will be presented to board with final reflections and celebration	CAP 3.0 Final Presentation (MAY) Final presentation to Lafayette's Board of Trustees marks the end of the CAP 3.0 update process.



PHASE 1

Kickoff and Data Collection (summer 2025)

The CAP 3.0 process formally began with a kickoff meeting in late June 2025, which aligned the Lafayette steering committee and project team on scope, objectives, and approach. Following the kickoff and initial planning meetings, Lafayette's consultant, ERM, began collecting data on Lafayette's energy use, historical greenhouse gas inventory, campus activity data, and prior climate risk assessments, including conducting an energy audit of Lafayette's campus, visiting more than 80 buildings. Prior to the fall semester, Lafayette developed an extensive stakeholder engagement plan, focused on actively involving decision makers as well as broader community members to ensure inclusive and transparent feedback throughout the development process.

PHASE 2

Campus Education and Initial Feedback (fall 2025)

Building on the initial data collection, Lafayette conducted a series of campus engagement sessions throughout fall 2025. These sessions brought together hundreds of students, faculty, staff, alumni, leadership, and external partners to provide input on CAP 3.0 strategies and goals.



Lafayette CAP Focus Groups

FOCUS GROUP	AREA OF FOCUS
Waste	Waste diversion goals and compost expansion
Dining	Sustainable food sourcing and dining plans
Procurement	Vendor engagement and sustainable sourcing
Steam Plant	Steam plant pathways and implementation timeline
Transportation	EV fleet transition and charger network installation
Metzgar	Metzgar renewable energy procurement, eco-cultural restoration, sustainable construction

PHASE 3

Road Map Development (winter 2025-2026)

Following the fall 2025 stakeholder engagement sessions, Lafayette synthesized input from the campus into a detailed set of decarbonization, resiliency, and adaptation strategies. Between December and February, these strategies were reviewed by targeted focus groups to refine the emissions reduction pathways and assessed implementation feasibility. We also developed and iterated on the CAP 3.0 interim targets, which supplement the overall 2035 carbon neutrality goal. These targets and key performance indicators are laid out in Section 13: Accountability Metrics.



PHASE 4

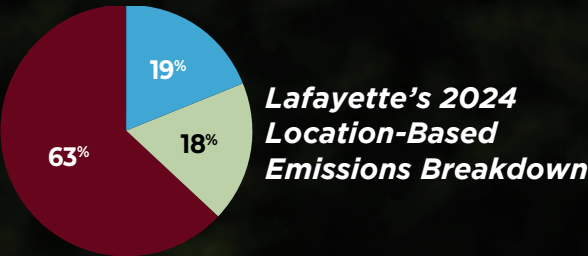
CAP Finalization (spring 2026)

Between February and April, we reviewed draft CAP 3.0 language and provided feedback, ensuring consistency across CAP sections. In May, we concluded the CAP 3.0 process with final stakeholder review and a presentation to Lafayette's Board of Trustees, with formal adoption of the updated CAP on May 22, 2026.



GHG & RESILIENCY BASELINE

The first step in the CAP development process was calculating the College’s emissions baseline and exposure to climate vulnerabilities. This baseline summarizes where Lafayette’s campus is today and serves as the foundation for the forward-looking recommendations in the CAP. In this section, we describe the process of developing the greenhouse gas and climate risk baselines, the results, and future plans for improving our data management to continue our climate leadership.



Greenhouse Gas Inventory

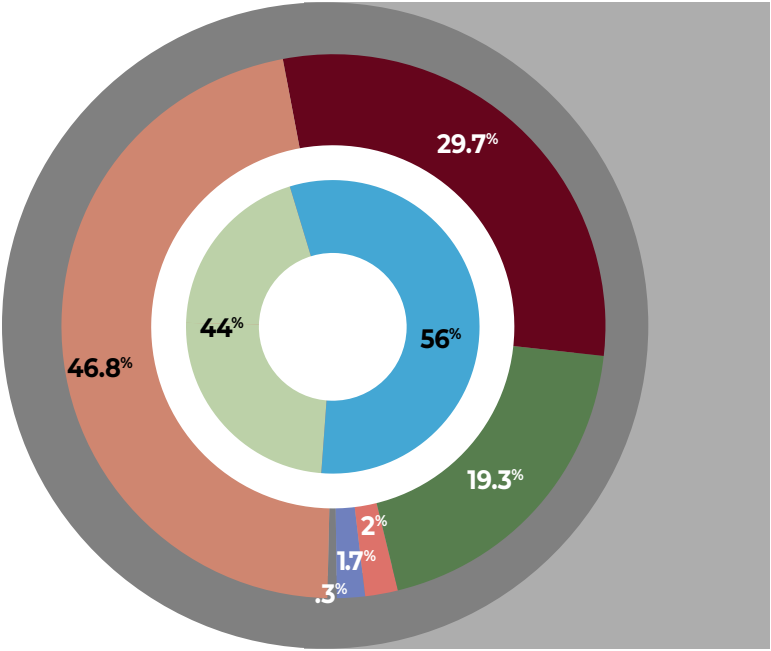
To calculate our greenhouse gas (GHG) emissions, Lafayette follows the GHG Protocol, which organizes emissions into three scopes.

- SCOPE 1** includes emissions directly produced by the College, such as fuel use in campus vehicles.
- SCOPE 2** covers emissions from purchased electricity or district energy.
- SCOPE 3** includes indirect emissions that occur upstream and downstream of campus operations, such as those associated with goods, services, and travel.

In 2025, Lafayette collected emissions data across all three scopes and calculated our scope 3 footprint using SIMAP, an emissions reporting platform designed for higher-education institutions. As shown in the pie chart on page 20, most of Lafayette’s emissions fall under scope 3, reflecting the broad range of activities captured beyond the College’s direct energy use.

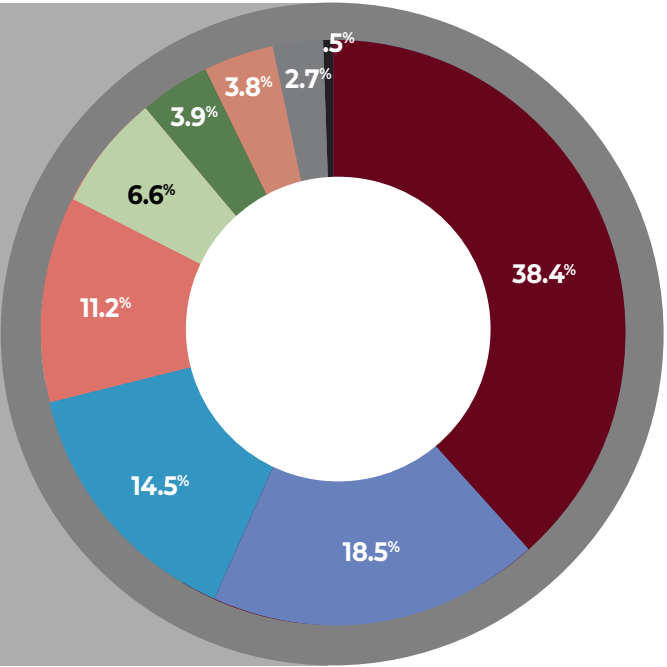
Looking closer at our direct (scope 1) emissions, we see that the vast majority comes from natural gas used to heat our buildings and water used on campus, while a small portion comes from vehicles, refrigerants, and other miscellaneous sources. The single largest contributor to our scope 1 emissions (56%) is our steam plant, which sits behind the Rockwell building on the main campus, burning natural gas to produce steam heating for over 30 buildings on College Hill.

Lafayette’s 2024 Scope 1 & 2 Emissions Breakdown



- SCOPE 1**
- SCOPE 2**
- Grid Electricity
- Steam Plant Natural Gas
- Campus Vehicles
- Refrigerants
- Distributed Natural Gas
- Other Fuels

Lafayette’s 2024 Scope 3 Emissions Breakdown



- Construction
- Other PGS
- Fuel & Energy Related
- Business Travel
- Food
- Capital Goods
- Waste
- Commuting
- Upstream Transport

The GHG Protocol recommends two methods for calculating scope 2 emissions.

THE LOCATION-BASED METHOD reflects emissions from the regional electricity grid based on how much electricity we use.

THE MARKET-BASED METHOD accounts for renewable electricity purchased directly from the market.

Although Lafayette cannot control Pennsylvania’s fossil-fuel-intensive grid, we can reduce our electricity emissions by purchasing zero-emissions renewable energy. As of 2026, Lafayette procures renewable energy for 100% of campus electricity, eliminating scope 2 emissions under the market-based method, while still reporting location-based emissions using Pennsylvania grid averages.

Lafayette’s largest source of emissions comes from scope 3 activities, which are largely outside the College’s direct control. This year, we expanded our inventory to include additional scope 3 categories, revealing that purchased goods and services are the largest contributors. Scope 3 remains both the largest and most challenging category to address. As a result, the CAP’s decarbonization strategy prioritizes scope 3 sources that Lafayette can directly influence, such as waste procurement and travel, rather than those it cannot, such as upstream transportation.

Vulnerability and Risk

Climate risk describes how changing weather patterns and extreme climate events may affect Lafayette College’s people, buildings, operations, and long-term mission. As climate conditions shift, campuses are increasingly exposed to hazards such as extreme heat and heavier rainfall, which can disrupt daily activities, damage infrastructure, and threaten health and safety. For Lafayette, assessing climate risk means looking ahead to understand how future conditions could affect campus life, academic continuity, and critical physical assets. To establish a campus-specific climate risk baseline, Lafayette conducted a geospatial analysis that combined detailed campus mapping with publicly available, peer-reviewed climate datasets.

The analysis indicates **extreme heat and flooding pose the most significant climate-related risks to Lafayette’s campus**. Rising temperatures are expected to lead to more frequent and prolonged heat events (159 days at 90th percentile heat degrees by 2050), affecting all campus assets and potentially impacting student comfort and health, academic and athletic activities, and energy demand for cooling. Flooding, both from heavy rainfall and riverine sources, poses particular risks to buildings and infrastructure in low-lying areas and near Bushkill Creek, with the potential to disrupt access, damage facilities, and result in costly repairs.

Other hazards, including extreme winds, wildfire weather, and landslides, present moderate but growing risks as climate conditions continue to change. Extreme wind is a particular concern for campus as it may pose an increasing risk to local electrical infrastructure. Together, these findings highlight the importance of proactive planning to strengthen campus resilience. By understanding where climate risks are most likely to affect people and infrastructure, Lafayette can better prioritize investments to protect our community, safeguard essential assets, and ensure the campus remains functional and resilient in a changing climate.

Data Improvement Plan

Lafayette College has articulated a clear vision to remain a climate leader among its peers, and improving the quality and consistency of GHG data is central to achieving that goal. While many institutions rely on high-level estimates, Lafayette has already committed to a far more granular understanding of its emissions, placing the College among a small group of higher education institutions striving for this level of rigor. **High-quality data not only improves the accuracy of the GHG inventory, but also strengthens decision-making, enhances transparency, and allows the College to clearly demonstrate progress toward its climate commitments.** As Lafayette continues to pursue ambitious decarbonization strategies, robust data is a requirement for understanding where emissions are coming from, prioritizing investments, and communicating leadership to the campus community and beyond.

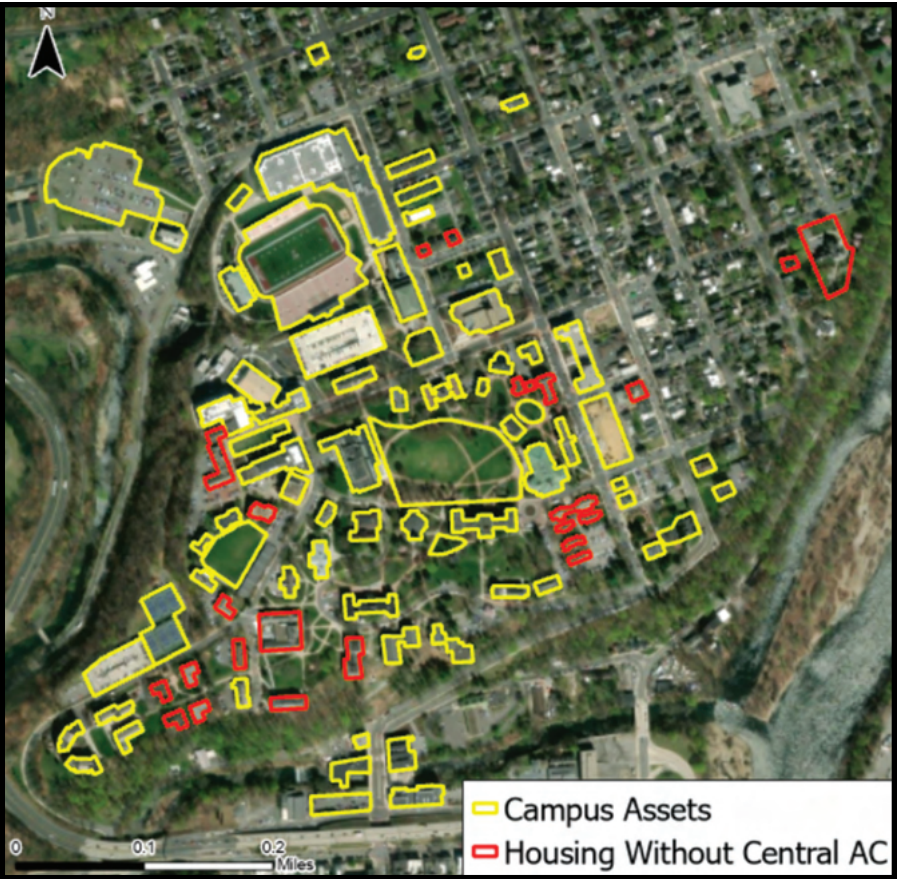
To build on this foundation, Lafayette must continue refining how emissions data are collected across all scopes, with the following improvements in mind:

- 1 Installing energy meters at each building would allow the College to better understand the relative use of electricity, natural gas, and steam, enabling more targeted efficiency and electrification efforts.
- 2 Updating scope 3 calculations, such as transitioning purchased goods and services emissions from spend-based to mass-based methods, would improve accuracy and better reflect actual material flows.
- 3 Collecting more detailed travel data through campus surveys, tracking fuel use and mileage across the College’s vehicle fleet, and working with vendors to better understand transportation of delivered goods would further strengthen the inventory.

Without these improvements, Lafayette cannot confidently track and claim credit for the impact of future decarbonization projects. As such, robust data collection and management will reinforce the College’s role as a climate leader in higher education.

Campus Climate Vulnerability Maps

Map of Campus Vulnerability to Extreme Heat



Map of Campus Vulnerability to Extreme Rainfall





RESILIENCY & ADAPTATION PRIORITIES

INTRODUCTION

As climate impacts intensify in frequency and severity, Lafayette recognizes that achieving carbon neutrality alone is not sufficient to safeguard its campus, community, and academic mission from long-term climate impacts. CAP 3.0 expands beyond emissions reduction to emphasize climate resilience and adaptation to ensure Lafayette’s physical infrastructure, operations, and community are prepared to withstand climate-related disruptions.

Building on the Climate Risk and Resiliency Baseline (see Section 8), this section outlines a suite of resiliency and adaptation measures designed to address Lafayette’s most material climate risks, including extreme precipitation and flooding, heat stress, changing seasonal weather patterns, and impacts to energy, water, and transportation systems. These measures focus on reducing vulnerability, minimizing service disruptions, and strengthening the College’s ability to continue delivering a safe, inclusive, and high-quality educational experience under changing climate conditions.

Where possible, adaptation actions are designed to deliver multiple co-benefits, including improved energy reliability, reduced operating costs, enhanced biodiversity, public health and safety enhancements, and expanded opportunities for student learning and engagement.

Bushkill Creek Greenway

The Bushkill Creek Greenway is a nature-based resiliency solution focused on reducing flood risk, stabilizing streambanks, and enhancing biodiversity along the Bushkill Creek corridor adjacent to Lafayette’s campus. **As climate projections indicate increasing rainfall intensity and riverine flooding in the Bushkill Creek watershed, this solution is designed to protect vulnerable campus assets, like the rowing facilities and arts campus, while delivering long-term ecological and community benefits.**

In the coming years, Lafayette will invest in riparian buffer enhancement, bioswale restoration (sloped channels with vegetation intended to capture stormwater runoff), and wetland rehabilitation along the creek’s edge. These interventions restore the natural floodplain’s ability to absorb and slow stormwater, reduce erosion, and improve water quality by filtering pollutants before they enter the creek. We will start by conducting site analyses to identify erosion, invasive species, and flood-prone areas. In partnership with the City of Easton, Lafayette will then select key vegetation species for planting and develop a planting strategy before restoring wetland and bioswales with the new species.

The Bushkill Creek Greenway resiliency opportunity zone has the added benefits of improving trail enhancement, in coordination with the Campus Master Plan, as well as creating a 3-5-acre riparian carbon sink (estimated to sequester 9-40 mtCO₂e/yr depending on vegetation growth rate).

Campus Core Cooling Network

The **Campus Core Cooling Network is a nature-based climate adaptation strategy designed to help Lafayette combat extreme heat events and rising summer temperatures.** The solution focuses on deploying distributed green infrastructure across the campus core to improve thermal comfort, protecting vulnerable campus assets, and enhancing biodiversity, particularly in areas and buildings that currently lack air conditioning.

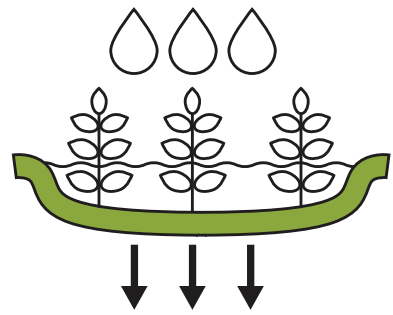
Lafayette will install a network of passive, nature-based cooling solutions, including green roofs, street trees for shade, and vertical gardens (living walls). Together, these features reduce ambient temperatures, provide shading, and improve building envelope performance, delivering localized cooling during warm months without relying on energy-intensive mechanical systems. A cooling network offers an innovative approach to preparing campus for increasing extreme heat events, especially benefiting Lafayette’s assets without air conditioning. This nature-based solution would improve comfort while reducing electricity costs.

To implement this solution, Lafayette would target approximately 20,000 square feet of green roofs, 75 street trees and expanded soil, and about 800 square feet of vertical garden wall space. The combined impact of these green solutions is estimated to sequester approximately 4-12 mtCO₂e/year depending on vegetation type. Rain gardens, vegetated stormwater trenches, and permeable paving will supplement these core cooling solutions. Residential halls that currently do not have air conditioning (i.e., Marquis, Watson, Eastman, Farber) would be optimal locations for installing this network of solutions.

In addition to the climate mitigation and adaptation benefits the projects have, they will provide student engagement opportunities, such as support with planting native species for campus or opportunities for classes to be involved in performance tracking to assess the temperature trends and effectiveness of the projects.



Photo by Bill Stank, Photosynthesis Photography



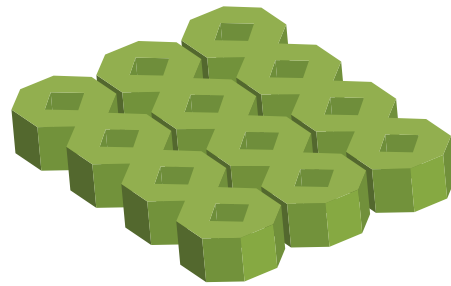
Green Stormwater Infrastructure

Green stormwater infrastructure is a nature-based resiliency opportunity that manages rainfall by slowing, absorbing, storing, and reusing stormwater across Lafayette's campus. This solution is designed to reduce rainfall-driven flooding, alleviate pressure on stormwater systems, and improve water quality while delivering biodiversity and campus co-benefits. Green stormwater infrastructure complements the other priority resiliency solutions (Bushkill Creek Greenway, campus core cooling network, and parking lot transformation) by embedding stormwater management directly into campus landscapes and infrastructure.

Lafayette would deploy a suite of distributed green stormwater features, including bioswales, permeable pavements, flood buffers, rain gardens, and on-site stormwater retention and reuse systems. These elements capture runoff during heavy rainfall events, restore groundwater, and reduce downstream flooding risks while supporting biodiversity and improving water quality.

Lafayette will develop the stormwater infrastructure plan in coordination with Campus Master Plan initiatives. We will install high impact features first (e.g., rain gardens and meadow edges) to divert and retain runoff then continue installation with subsurface storage (for rainwater reuse) and native plantings. The estimated carbon sequestration impact from meadow conversion, bioretention, and native plantings is approximately 1-5 mtCO₂e/year depending on the area covered.

Green stormwater infrastructure creates opportunities to partner with the City of Easton on planting strategy and species selection and requires engagement with faculty and staff on the Campus Master Plan committees on the installation schedule.



Parking Lot Transformation

The Parking Lot Transformation is a climate resiliency strategy that reimagines existing campus parking areas as multifunctional, climate-adaptive infrastructure. **By retrofitting select parking lots with permeable surfaces, expanded tree canopy, and electric vehicle (EV) charging, this solution addresses extreme heat and heavy rainfall flooding while supporting Lafayette's broader decarbonization and campus experience goals.**

Lafayette will upgrade priority parking areas, such as those near the Fraternity & Sorority life houses, Pierce Street, and the Bushkill parking lot, by replacing conventional asphalt with permeable paving, increasing shaded tree canopy, and integrating EV charging infrastructure. These improvements allow stormwater to infiltrate where it falls, reduce surface temperatures, and modernize parking assets to align with the EV transition for direct emissions reduction.

We will start by planting tree canopies in conjunction with the campus core cooling network strategy, targeting 45 trees (estimated to sequester 0.5-1 mtCO₂e/year) surrounding the applicable lots. We will then prepare surface infrastructure and work with the Campus Master Plan and other groups to coordinate permeable pavement installation in conjunction with other major capital projects, so as not to disrupt campus operations for extended periods of time. We will coordinate the EV charging network installation with the EV transition plan from our decarbonization road map to ensure charging stations are prioritized in key commuting and facilities locations.



EDUCATIONAL OPPORTUNITIES



Adopting these climate resiliency and nature-based adaptation measures will create substantial experiential learning opportunities by embedding hands-on climate adaptation work directly into Lafayette's campus environment. Educational opportunities will be further enhanced by coordinating with federally recognized Lenape nations, who care deeply about healing the homeland. Students will be able to participate in field-based research and applied projects related to flood mitigation, urban heat reduction, biodiversity restoration, and stormwater management, supporting coursework in environmental studies, ecology, engineering, public health, urban planning, and data science. Initiatives such as the Bushkill Creek Greenway, campus cooling network, and green stormwater infrastructure will enable students to engage in native species selection, ecological monitoring, temperature and hydrology tracking, and performance evaluation of nature-based solutions. Particularly, the Bushkill Creek Greenway presents a unique opportunity to partner with the Lenape nations on plant species selection and signage around the greenway in Lenape/Delaware language. Through planting efforts, citizen science, and partnerships with the City of Easton, students will gain practical skills in climate resilience planning and community-engaged sustainability, reinforcing Lafayette's campus as a living laboratory for adapting to a changing climate.

RESILIENCY ROAD MAP

..... ✓ Immediate Term (2026-2028)

- Conduct site analyses and review any permitting restrictions
- Partner with City of Easton to identify key species and develop planting strategy
- Identify rooftops/building facades for green roofs and vertical gardens, prioritizing buildings with no AC

..... ✓ Near Term (2029-2031)

- Start planting deep-rooted native species
- Prepare target lots for permeable surface installation
- Upgrade electrical systems to prepare for EV chargers
- Install green roofs and vertical gardens on priority buildings
- Conduct tree plantings around pedestrian pathways
- Begin installing meadow edges and rain gardens for stormwater infrastructure

..... ✓ Medium Term (2032-2035)

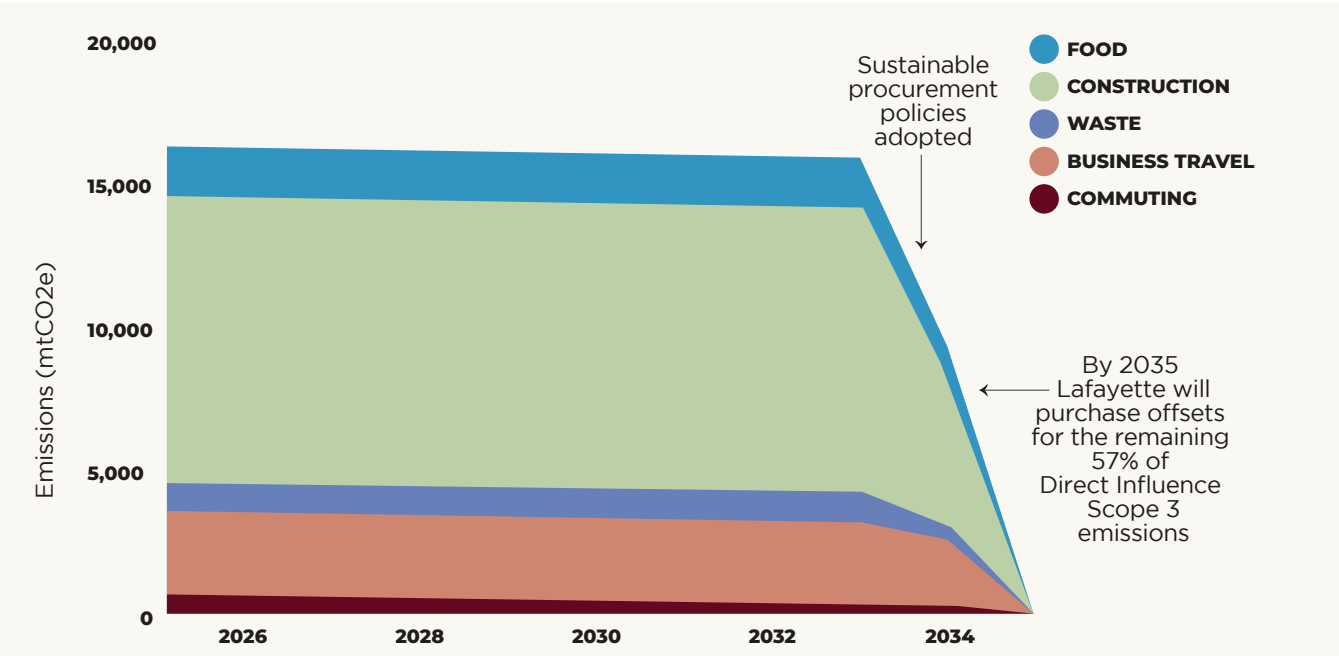
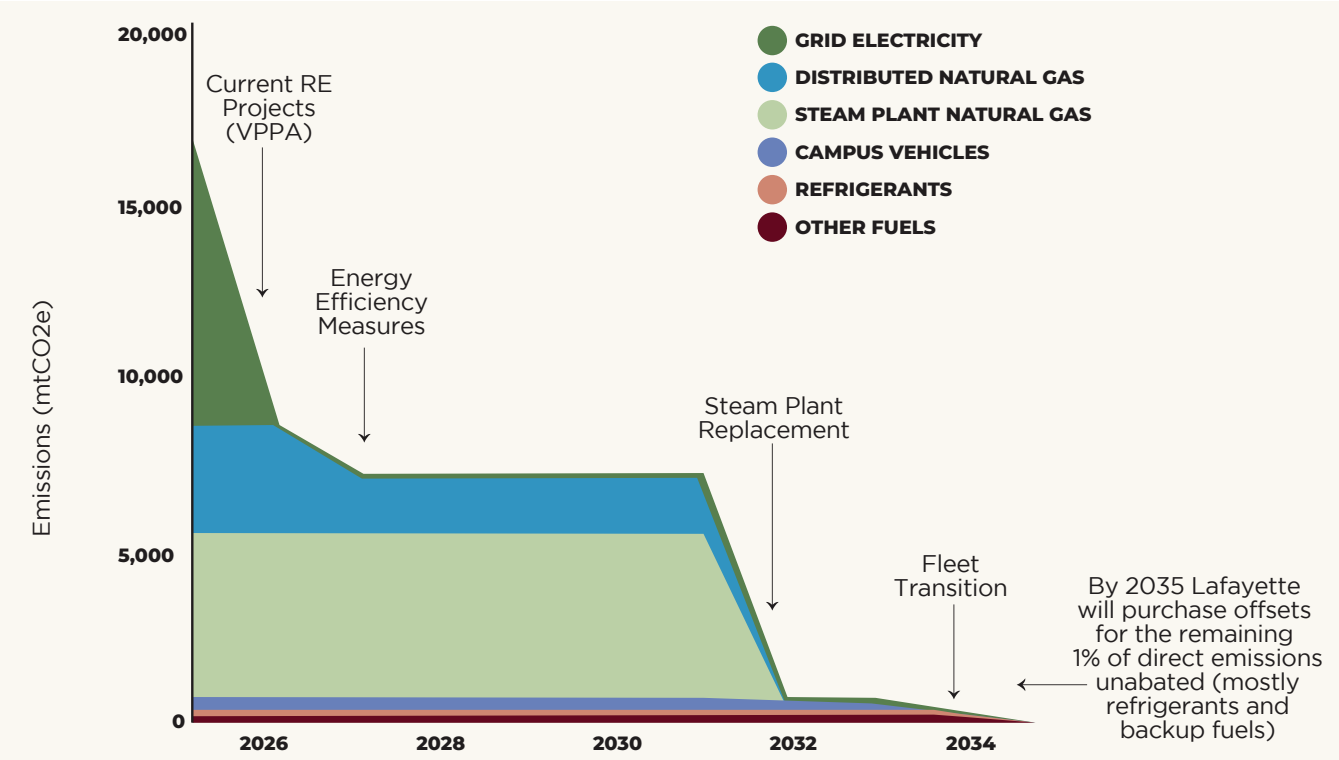
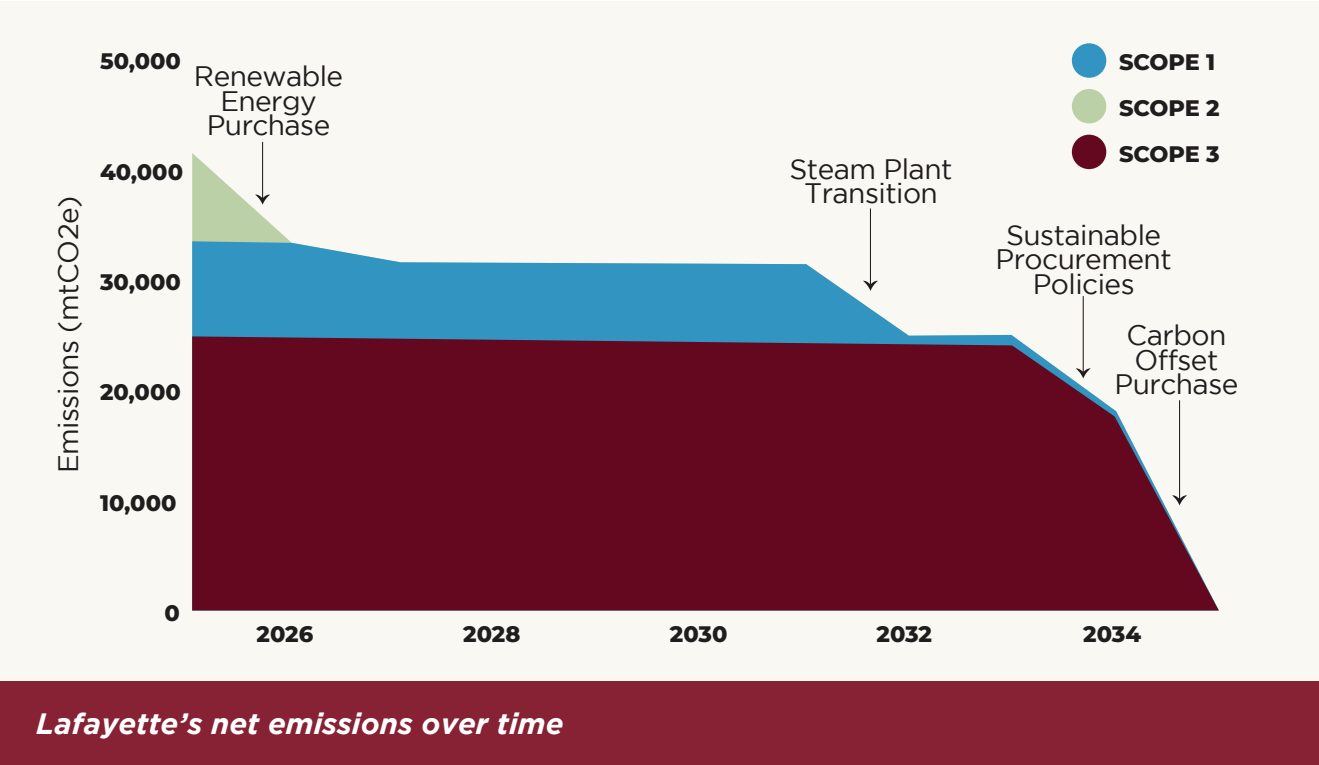
- Introduce new wetland species
- Install permeable surfaces and EV-charging stations based on planned surface maintenance and overhaul
- Install on-site stormwater retention tanks
- Monitor impact of new cooling infrastructure on campus energy demand

ROAD MAP TO CARBON NEUTRALITY

INTRODUCTION

The road map below outlines our pathway to carbon neutrality across five activity categories that contribute to our campus footprint: thermal loads, electricity, transportation, waste and procurement, and Metzgar campus. For each of these categories, we outline the solutions we’re adopting to address our current and future emissions, the impact of those solutions, and the steps we’ll take to implement them. We are prioritizing direct action, replacing our infrastructure, our fuels, and our practices before 2035, and then, to achieve full carbon neutrality, we will purchase high-quality carbon offsets to address any emissions we are unable to abate. The wedge charts below illustrate

an approximate timeline for how we will reduce our emissions between today and 2035. In addition to our goal to achieve carbon neutrality by 2035, we have interim targets within each scope (i.e., 70% reduction in scope 1 emissions, maintaining 100% renewable energy for all new scope 2 emissions, and a 42% reduction in scope 3 emissions), which are laid out in more detail in Section 13: Accountability Metrics. As mentioned in the previous section, the focus of the decarbonization pathway in this CAP are on direct emissions sources (scope 1 and 2) and indirect emissions (scope 3) contributors that Lafayette has immediate influence over, as shown in the figures below and to the right.



In the following sections, we provide more detail on the solutions we will leverage to achieve our targets. Please note that, unless otherwise specified, all initiatives are intended for implementation across the entirety of Lafayette’s campus (including Metzgar).

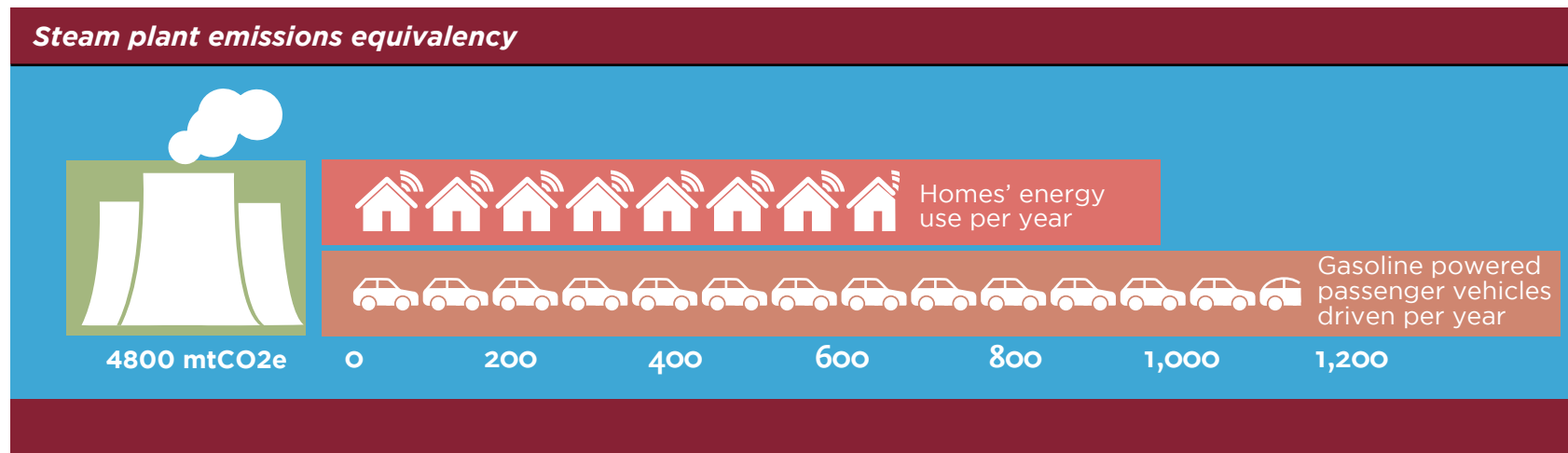


1.

Decarbonizing Heating, Cooling, & Hot Water

INTRODUCTION

Lafayette's central steam plant is one of the most critical infrastructures on campus. **Located behind Rockwell Integrated Sciences Center and Acopian Engineering Center, the steam plant heats over 30 buildings on campus.** Underground pipes distribute steam throughout campus, generated using natural gas at the central steam plant. Although the steam plant is crucial for campus operations, **it is also the largest single source of direct (scope 1) greenhouse gas emissions on campus, accounting for approximately 11% of total campus emissions and 56% of scope 1 emissions** (approximately 4,800 metric tons of CO₂e) annually from natural gas combustion. Therefore, decarbonizing the steam plant is a critical pathway to carbon neutrality by 2035, delivering both substantial emissions reductions and long-term operational and resilience benefits.



Pathways Evaluated

Lafayette evaluated a total of 13 pathways to replace or transform the existing steam system, ultimately narrowing it down to four pathways. These initial pathways were assessed based on emissions reduction potential, cost and economics, impact, and implementation feasibility to identify which solutions would be most compatible with Lafayette's campus and community.

After a thorough examination of the tradeoffs, the conclusion of the work was that **Lafayette will likely pursue either a purely decentralized option or some combination of decentralized and centralized solutions to reduce emissions from the steam plant.** Decentralized solutions use modular or localized units to provide campus heating needs at an individual building level, whereas a centralized solution would operate similar to the steam plant where one larger system generates the thermal energy needed for many buildings on campus. The benefit of a decentralized solution is Lafayette can slowly wean off of the steam plant, building by building, with a series of piecemeal renovations, making it easier to budget and maneuver around business-as-usual campus operations. However, a centralized solution could help with campus resiliency by combining electricity production and hot water production to simultaneously meet campus electricity demands plus heating, cooling, and hot water demands. Following is a brief description of each solution, centralized and decentralized. Further information on benefits, limitations, and uncertainties of each pathway are provided in Appendix C.

Primarily decentralized solution pathway:

AIR SOURCE HEAT PUMPS (ASHP):

Electrically powered systems that exchange heat with outdoor air to provide building heating and cooling, replacing steam and traditional fossil fuel natural gas boilers.

Primarily centralized solution pathways:

The College may also continue to have a centralized source of energy to meet the heating, cooling, and hot water loads of much of the campus in addition to ASHP at some buildings. Lafayette may incorporate one of the following centralized solutions on campus:

1 GEO-EXCHANGE (GROUND-SOURCE HEAT PUMPS):

A centralized electrically powered underground loop, installed in a large open area, paired with ground-source heat pumps, using stable ground temperatures to efficiently heat and cool campus buildings.

2 COGENERATION (COMBINED HEAT AND POWER) WITH CARBON CAPTURE:

On-site electricity and thermal energy generation using natural gas, paired with carbon capture systems that separate CO₂ from exhaust gases for transport and sale or storage.

3 FUEL CELLS WITH CARBON CAPTURE:

On-site electricity and thermal energy generation using an electrochemical reaction, rather than combustion, of a hydrogen-based fuel. (Current fuel cells typically use natural gas.) This system is paired with a carbon capture system that separates CO₂ from exhaust gases for transport and sale or storage.

As part of a detailed engineering study, Lafayette will evaluate each of these pathways based on the following key priorities:

RESILIENCY: Ability for the solution to provide backup power during power outages.

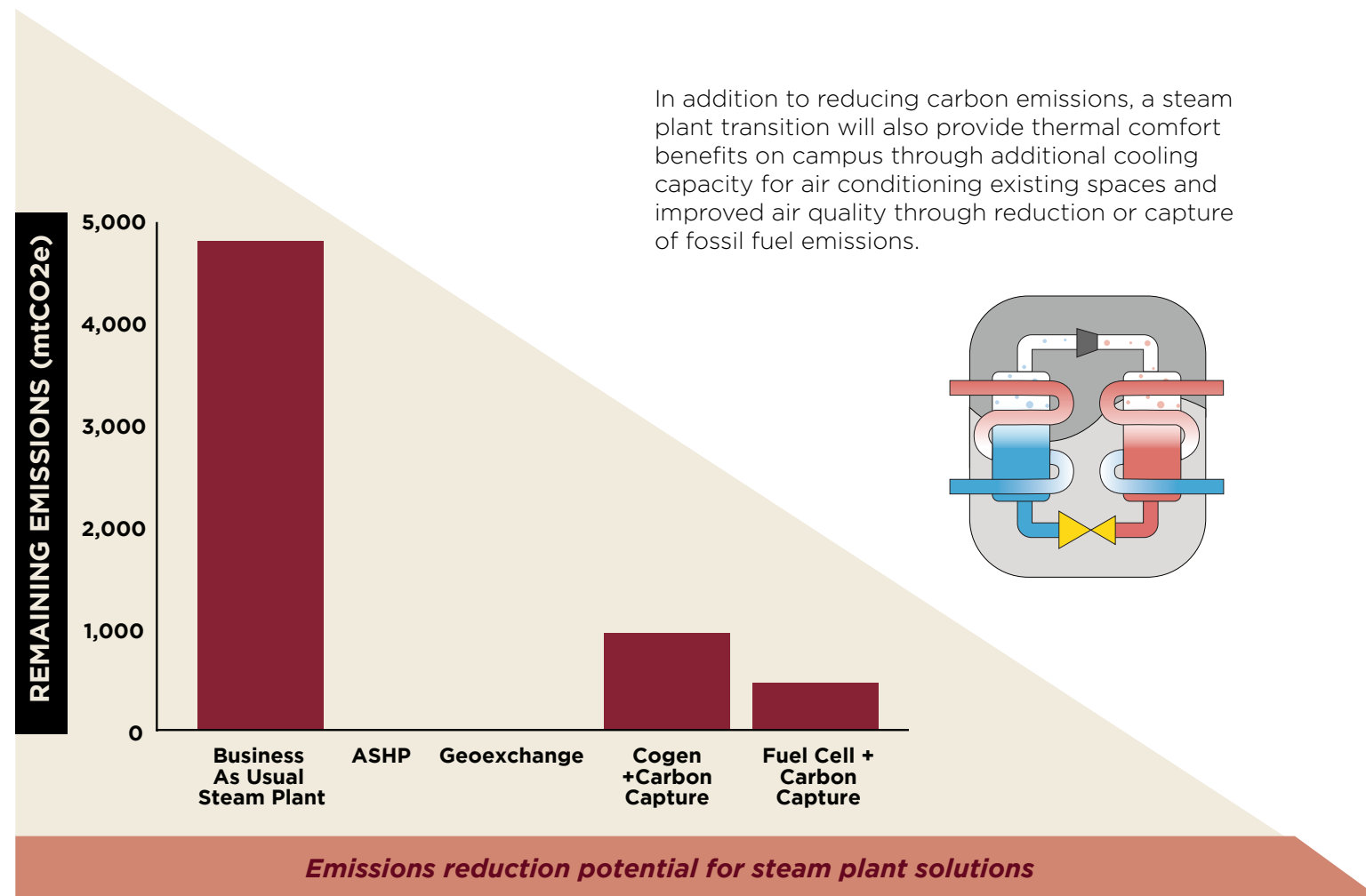
LEVEL OF PHYSICAL DISRUPTION: Amount of disruption to campus aesthetics and everyday operations.

COST: Includes upfront capital costs and any recurring maintenance costs.

PROVEN TECHNOLOGY: Reliable and tested technology with a documented track record or case studies to prove successful long-term operation, as well as Lafayette's existing ability to integrate and manage this technology.

LIMITATIONS AND CONSTRAINTS: Campus-specific limitations that may make the solution incompatible with Lafayette's campus and community.

UNCERTAINTIES: How significant are the unknowns in this pathway, and how willing we are to take on that risk.



EDUCATIONAL OPPORTUNITIES

The steam plant transition represents a large project that can serve as a living laboratory for students and faculty. For all of the centralized solutions, there may be opportunities for students and faculty to engage in the design portion of the project, assisting with site assessments and conducting research on geo-exchange or carbon capture configurations. Increasing solution signage and building performance via interactive screens and online platforms within each building can also help involve the campus community when tracking solution performance.



The Lafayette Student Newspaper

THERMAL LOADS ROAD MAP

The following road map phases out the near-term versus long-term action items for Lafayette to fully decarbonize the central steam plant.

..... ✓ Immediate Term (2026-2028)

- Commission detailed engineering study to determine size, design, and refined costs for centralized systems. This study would help provide clarity to the uncertainties listed in the sections above.
- Begin forecasting exercise of future electricity demand based on chosen pathway.

..... ✓ Near Term (2029-2031)

DECENTRALIZED PATHWAY

- Initiate electrical upgrades and panel improvements as required to support electrification
- Begin phased deployment of air source heat pumps, starting with peripheral buildings that already have sufficient electrical capacity. Target an average annual emissions reduction of ~800 mtCO₂e/year until all buildings are complete
- Source additional renewable electricity through on-site solar or virtual power purchase agreements (VPPAs) to offset anticipated increased electric demand from air source heat pumps (more details in the following section on Electricity Solutions)

HYBRID PATHWAY

- Initiate electrical upgrades and panel improvements as required to support electrification
- Begin phased deployment of air source heat pumps, starting with peripheral buildings that already have sufficient electrical capacity (gym distribution header, east distribution header)
- Source additional renewable electricity through on-site solar or virtual power purchase agreements (VPPAs) to offset anticipated increased electric demand from air source heat pumps (more details in the following section on Electricity Solutions)
- Develop installation plan and schedule for centralized solution
- Begin installation of a centralized solution during summer and winter terms

..... ✓ Medium Term (2032-2035)

- Finalize installation and commissioning of all air source heat pumps and/or centralized solutions
- Complete steam plant retirement and remove redundant infrastructure
- Renewable electricity projects come online to support additional electric load
- If applicable, finalize vendors for transport and sale of end-use captured carbon



2.

Electricity Solutions

INTRODUCTION

As part of CAP 2.0, Lafayette committed to sourcing 100% of its electricity from renewable energy through a combination of on-campus generation and off-site renewable energy procurement. That goal has been achieved as of 2026, marking an important milestone in the College's decarbonization efforts. However, as Lafayette continues to grow and modernize, through new construction, campus renewal projects, and the transition away from natural gas and steam systems, overall electricity demand is expected to increase. Without additional action, this growth could jeopardize the College's ability to maintain its 100% renewable electricity status. CAP 3.0 therefore reaffirms and extends this commitment, with a focus on sustaining 100% renewable electricity over the long term. This will be accomplished through a **combination of expanded on-site solar generation, energy efficiency measures to reduce total electricity demand, and the strategic procurement of renewable electricity from off-campus sources.** The following sections outline the pathways Lafayette will pursue to maintain this commitment as campus energy needs evolve.



470-kilowatt rooftop solar array installed on Kirby Sports Center in 2022

In 2024, electricity accounted for approximately 20% of Lafayette's total greenhouse gas emissions (using location-based accounting). Looking ahead, campus electricity demand is projected to nearly double by 2035 as electrification becomes a central strategy for reducing emissions from heating, transportation, and other systems. Therefore, meeting Lafayette's carbon neutrality goals will require a dual approach: continuing to ensure all electricity is sourced from renewable energy, while also reducing overall demand wherever possible.

PROJECT TYPE	REDUCTION IN ENERGY EMISSIONS
High-efficiency window replacements	3.2%
Heat pump water heaters	1.7%
Variable frequency drives (VFDs)	1.5%
LED lighting	1.4%
Heat pump dryers	0.3%
Automated lighting sensors	0.2%
Automated appliances	0.2%

Identified energy efficiency opportunities

Energy Efficiency Solutions

Building on the progress made to date (Section 6), in August 2025, Lafayette engaged a third party consultant, ERM, to conduct a comprehensive review of more than 80 campus buildings to identify additional opportunities for improvement of buildings' energy use. Many of the recommended improvements involve proven, widely used technologies, as well as behavioral changes to reduce electricity consumption. For example, replacing older lighting with LED fixtures can provide the same quality of light while using 60% to 90% less energy, and installing automatic sensors for lights and electronic equipment can reduce electricity when a building is not occupied. These upgrades reduce electricity use and also significantly lower the demand for natural gas by reducing the need for boilers and water-heating systems across campus.

Beyond equipment upgrades and larger capital projects, there are also simple, low-cost ways to reduce energy waste that depend on how buildings are operated and used each day. Small changes in behavior and building operations can add up to meaningful savings. For instance, conducting a campus-wide comfort survey can help identify buildings with inefficient heating or cooling systems, and implementing adjustments like turning off or removing equipment rarely used can avoid wasting energy when it is not needed.

Working closely with facilities staff, students, and faculty, Lafayette has developed and prioritized a list of energy efficiency projects, summarized in the table at left. Together, **these efforts are expected to reduce overall campus greenhouse gas emissions by approximately 8.5%, while also improving building performance and reducing operating costs.**

On-site Solar Panel Expansion

Solar panels play an important role in reducing Lafayette's greenhouse gas emissions by replacing electricity from the regional power grid, which is often generated using fossil fuels, with clean, zero-emissions electricity produced on campus. Additionally, on-site solar installations can help reduce grid electricity reliance, improving Lafayette's exposure to power outages and grid issues.

There are several practical ways to install solar panels on campus. The most common approach is placing panels on building rooftops, where the electricity they generate can be used directly by the buildings below. The solar array at Kirby Sports Center is one of Lafayette's most visible and successful examples of this approach, providing



approximately 22% of Kirby's annual electricity demand, and similar rooftop installations could be added to other suitable buildings across campus.

Solar panels can also be installed on the ground, which is most effective in open, unshaded areas with sufficient space. The Metzgar campus is particularly well suited for this type of installation due to its available land, southerly exposure, and favorable conditions. As plans for future development at Metzgar move forward, space for solar installations (estimated at 3 MW of capacity) should be incorporated to support the goal of achieving and maintaining net-zero emissions at that campus as development occurs.



Off-site Renewables Procurement

While rooftop, carport, and ground-mounted solar panels are strong, visible methods of using renewable energy for the campus's growing needs, it is estimated that by 2035, Lafayette will need more than 40,000 MWhs annually of electricity to function. **Lafayette may not have enough space available to generate 100% of campus electricity needs with its own solar panels by 2035**, but can still source renewable energy off campus through power-purchasing contracts with large renewable energy developments.

In 2024, Lafayette announced it had entered into one of these contracts in coordination with other higher education institutions in Pennsylvania to buy renewable energy from a solar farm located in Kentucky. Although these solar panels are not on Lafayette's campus, we account for the renewable energy produced on our behalf by owning the renewable energy credits (RECs) associated with the

Another opportunity for on-campus solar generation is the installation of solar panels above parking areas. These "solar carports" typically cost more to install than rooftop or ground-mounted systems, but they offer added benefits. In addition to generating clean electricity, they provide shade and snow protection for vehicles, and create convenient locations for electric vehicle charging stations as those are expanded across campus. Considering all of these installation options together, Lafayette has identified several locations on the main campus where solar panels could be added, as shown in the image left, the totality of which could generate an estimated 10% to 15% of the College's total electricity needs.

While these potential locations provide a strong starting point, additional work is needed to determine where new solar installations are most feasible and cost-effective. Over the coming year, Lafayette will complete a detailed feasibility assessment and issue requests for proposals to identify qualified solar panel suppliers. We will also work closely with architects and contractors to ensure all new buildings are designed to be "solar-ready," making it easier to add solar panels in the future. **Taking these steps now will allow Lafayette to expand on-campus solar generation over time and maintain its commitment to 100% renewable electricity as the campus continues to grow.**

project. Lafayette was able to calculate how much electricity we use, purchase, and then exclusively own the equivalent amount of RECs (~28,500 MWh) such that no one else in the world can claim the renewable energy generated belongs to them.

As the campus continues to grow, it is likely another power purchase agreement, or an expansion of the size of the current contract, will be necessary to achieve 100% renewable energy. Starting as soon as June 2026, Lafayette will engage our finance, procurement, legal, and external teams to

- 1** confirm future electricity demand projections and
- 2** initiate procurement of additional RECs (either by renegotiating the current contract or contracting for a new off-site renewables project).



EDUCATIONAL OPPORTUNITIES

On-site electricity solutions present a very visible opportunity to display sustainability initiatives on campus. Like the solar installation on Kirby Center, new on-site solar systems and energy efficiency upgrades can be incorporated into campus sustainability tours and prospective student tours to highlight Lafayette's commitment to sustainability. Additionally, data can be made available for use in engineering and environmental science courses to track project progress and measure energy savings. For off-site solar or virtual power purchase agreements, there may be opportunities in the future for Lafayette to partner with other higher education institutions on a new project, similar to the partnership in our first power purchase agreement, or promote class trips to the off-site renewable energy projects for interested students and faculty.



ENERGY ROAD MAP

..... ✓ Immediate Term (2026-2028)

- Develop thermal comfort survey for academic year 2026-27
- Run competitive procurement for off-site renewable energy contract, in partnership with other higher education institutions

..... ✓ Near Term (2029-2031)

- Complete electricity load forecast after steam plant electrification engineering study has been completed
- Complete priority energy efficiency projects over the summer and winter terms
- Conduct on-site solar feasibility study
- Monitor status of off-site renewables contract as it comes online

..... ✓ Medium Term (2032-2035)

- Construct new solar installations on main campus and Metzgar according to results of feasibility study
- Ensure all new construction projects have solar-ready roofing
- Complete more capital-intensive energy efficiency projects such as heat pump and boiler upgrades

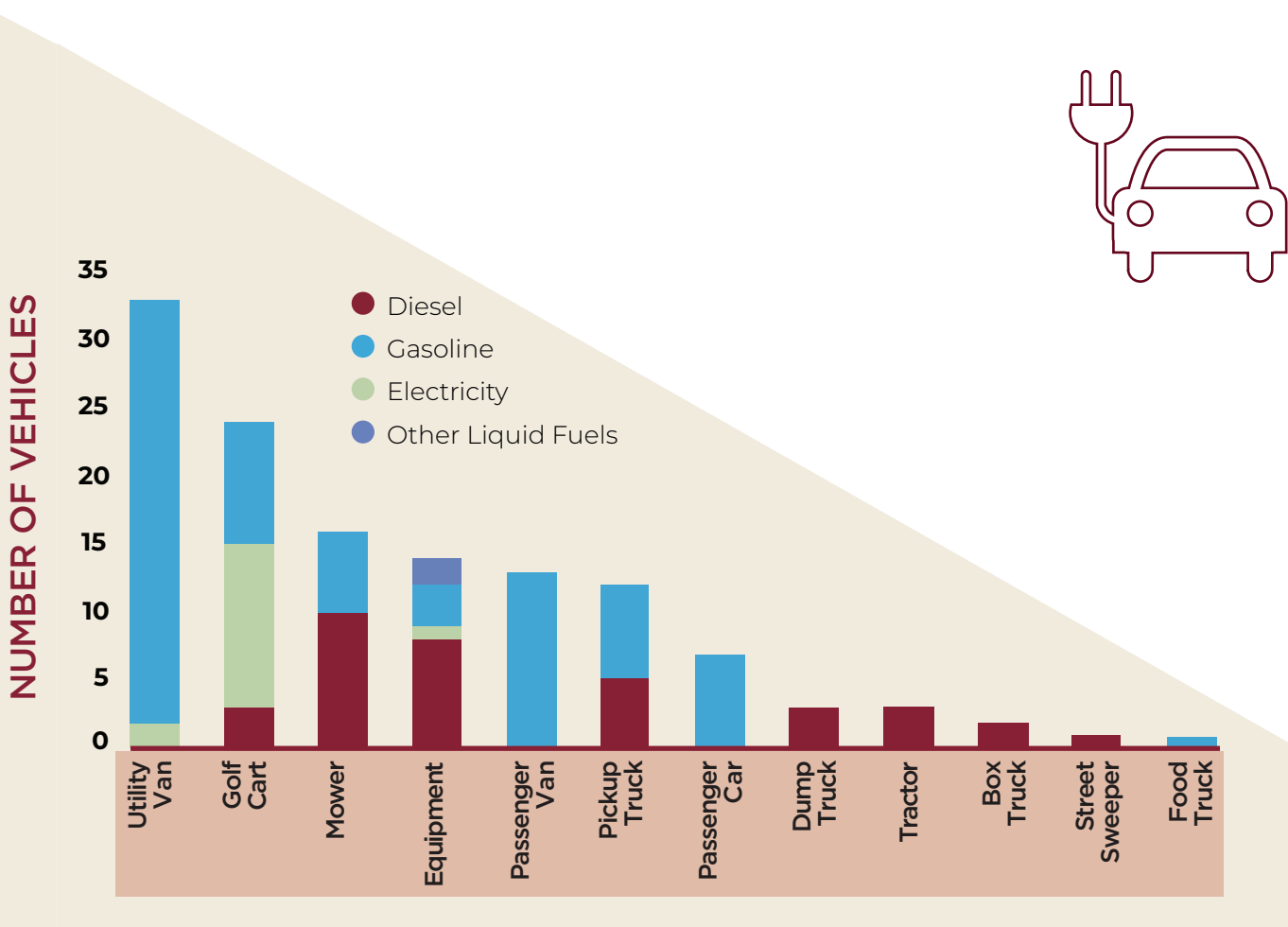


3.

Transportation

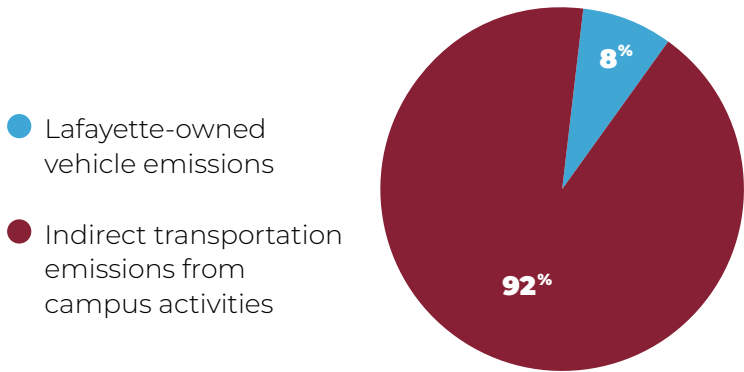
INTRODUCTION

Transportation-related activities, including campus fleet operations, commuting, and business-related travel, represent a meaningful share of our greenhouse gas emissions footprint and a critical opportunity for emissions reduction. Lafayette's transportation emissions come from both direct (scope 1) emission sources and indirect (scope 3) emission sources. **Combined, the transportation emissions account for approximately 10% of Lafayette's overall greenhouse gas emissions.** The direct transportation emissions are largely from the Lafayette-owned gasoline and diesel fleet, which consists of 102 gasoline vehicles and 16 diesel vehicles.

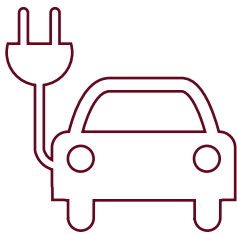


Lafayette-owned vehicle breakdown

Our indirect transportation emissions are largely from daily commuting by students, faculty, and staff, and travel associated with campus-related activities such as athletics travel, study abroad, and travel for conferences. The focus of decarbonization efforts for indirect transportation emissions is to prioritize pathways that Lafayette can directly influence either through behavioral changes or vendor engagement.



Transportation emissions breakdown by type



Electric Vehicles and Charging Stations

Electric vehicles (EVs) are a highly visible way to reduce Lafayette's direct transportation emissions, while also mitigating local air and noise pollution. **After determining strategies to be more efficient with campus vehicle use and eliminating redundancy in the fleet, Lafayette can replace its light-duty vehicles with electric models.** These EV models reduce our reliance on fossil fuels, which ultimately reduces our direct (scope 1) emissions. In order to achieve Lafayette's goal to replace all new light-duty vehicles with the EV equivalent by 2035, we will phase the fleet transition over 10 years, with older vehicles prioritized first. The College is prioritizing streamlining the existing fleet to eliminate instances of seldom used vehicles, instead focusing on shared vehicles that optimize value of individual vehicles. The emphasis remains on transitioning to EVs. However not every vehicle will require a replacement at the end of its life as its utilization may already have been answered by the aforementioned streamlining.

Although transitioning Lafayette's fleet to fully electric vehicles would be a positive and visible decarbonization initiative on campus, the project is incomplete without the addition of EV chargers to support these new vehicles. The installation of new charging stations would not only benefit the facilities team members who will utilize the EV campus fleet, but it can also benefit campus community members who may use personal EVs to commute to the school. With the feedback of the Lafayette community, we developed the map of potential EV charging stations seen below. Over the next few years, we'll work with facilities to better understand the feasibility of locating EV chargers at these spots as we transition our vehicles to electric.

Most popular future EV-charging locations include:

- Markle Parking Deck
- Leopard Deck
- Jenks Hall Parking Lots
- Parking lot by Portlock and Hillel House
- 901 Bushkill Lot
- 1001 Bushkill Lot

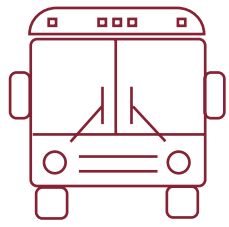
Existing EV-charging locations include:

- Markle Parking Deck – 6 chargers
- Simon Center – 1 charger
- Watson Hall – 1 charger
- Rockwell Integrated Sciences Center – 1 charger
- Marquis – 6 golf cart chargers

Because of the added electricity demand from our new electric vehicles on campus, Lafayette will buy additional renewable electricity to maintain our commitment to using 100% renewable energy. Forecasted electrification needs will be coupled with any steam plant electrification, as discussed in the first portion of Section 8, to adequately source additional renewable electricity projects both on Lafayette's campus and outside of it.



Proposed EV-charging station locations on the main campus



Public Transit

Expanding campus public transit options would help with addressing Lafayette's emissions related to daily

commuting by students, faculty, and staff. **While some of these emissions may be reduced by the expansion of EV-charging infrastructure, as mentioned above, for community members who do not own electric vehicles, public transit offers another viable solution.** Lafayette would work with LANTA, the public transportation authority in Easton, to expand public transit hubs to more campus facilities so that community members can commute more frequently by public bus, inducing fewer emissions per person than they would in individual gasoline-powered cars. In parallel, Lafayette would enhance active transportation infrastructure by expanding and improving walking paths and biking options, creating safer, more connected routes between residence halls, academic buildings, and transit hubs to encourage low-carbon travel across campus. Transportation infrastructure will be coordinated with existing expansion plans outlined in the Campus Master Plan.

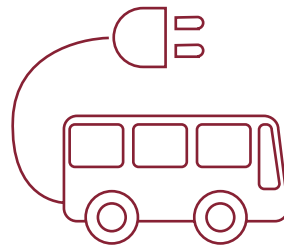
To implement this change, Lafayette will start by reaching out to the campus community to assess demand for additional transit hubs, pedestrian pathways, and bike infrastructure, as well as identify priority locations. There may be opportunities to partner with the City of Easton as well to determine feasibility of adding transit hubs, bike lanes, and pedestrian connections that allow community members to easily travel between campus and surrounding neighborhoods.

Expanding public transit hubs alongside walking and biking infrastructure offers the added benefits of improving local air pollution associated with commuting, while benefiting the greater Easton community by ensuring easy access from campus to local businesses and establishments.

Sustainable Air Travel Policy

Another major contributor to business travel-related indirect (scope 3) emissions is air travel, including travel associated with annual study abroad trips.

Air travel represents a challenging but important source of indirect emissions that can be directly influenced by Lafayette, as changes are geared toward behavioral shifts. Lafayette will develop a sustainable air travel policy intended to limit unnecessary flights, encourage lower-emissions travel choices where feasible, and improve data transparency for emissions tracking and reporting.



Electric Shuttles

Lafayette currently utilizes traditional fossil fuel-based shuttle buses for all athletics and inter-campus travel between facilities (including

travel between Metzgar and Main Campus). These emissions contribute to the indirect (scope 3) business travel emissions category. **Lafayette, in collaboration with shuttle vendors, will pursue an electric alternative to transition away from its fossil fuel-based shuttles.** As campus programming and facilities continue to expand, particularly with the buildout of Metzgar campus, additional shuttles may be required, and electrifying the shuttle service can help ensure increased campus mobility does not translate into increased transportation-related scope 3 emissions.

Electrifying shuttles is a highly visible decarbonization action that directly supports students and campus users who rely on shuttles for intercampus travel. In addition to helping reduce emissions, electric shuttles reduce local air pollution from fossil fuel combustion, improving air quality on campus and in the surrounding community. By exploring electrification for athletics trips and routine campus circulation, Lafayette can reduce the emissions intensity of recurring travel demand and limit growth in transportation emissions as shuttle ridership increases.

Implementation of this solution will be accomplished by assessing current and future expected ridership to ensure optimal number and sizing of new electric shuttles. In parallel, Lafayette can explore other electric shuttle alternatives to serve the Easton area. Transition to electric shuttles will be based on availability and feasibility of implementation on Lafayette's campus.



In the near term, Lafayette will focus on improving air travel data collection. Current data utilizes air travel mileage to and from any business-related activities. Improvements can be made to the granularity of data by also tracking travel within destination cities (i.e., local travel during study abroad) and continued promotion of surveys to accurately capture all travel. Building on this foundation, Lafayette will draft a sustainable air travel policy that may include requirements to disclose estimated emissions when requesting travel approval or budget, as well as guidance or incentives to prioritize lower-emissions alternatives (such as train or bus travel) when there are practical substitutes for short flights.



EDUCATIONAL OPPORTUNITIES



Since transportation is a category in which all campus community members engage, there are multiple opportunities for education, research, and teaching. For solutions like public transit, there may be educational opportunities for students and faculty interested in urban planning to participate in feasibility meetings and new infrastructure buildout. Similarly, electric vehicle fleet transition will require significant coordination with the Campus Master Plan committees, which also include students and faculty members. For air travel solutions, campus involvement may include calculating travel emissions for Lafayette-related trips and socializing the policy across departments to create interdisciplinary conversations about sustainability.

TRANSPORTATION ROAD MAP

..... ✓ Immediate Term (2026-2028)

- Conduct public transit appetite survey to assess demand for new hubs
- Establish working group with LANTA stakeholders to evaluate new hubs
- Collect data on commuter EV usage
- Review current air travel data and start gathering data on destination city travel mileage

..... ✓ Near Term (2029-2031)

- Assess feasibility of charging at select locations through engineering study
- Lay out charging station installation plan and incorporate into Campus Master Plan
- Run competitive RFP for EV and charging station provider
- Continue replacing oldest vehicles with EVs
- Pursue electric shuttle options that serve the Easton area
- Run competitive RFP for EV shuttle options for intercampus travel based on feasibility and results from initial exploration
- Draft air travel policy and socialize with department heads and relevant stakeholders

..... ✓ Medium Term (2032-2035)

- Add public transit hubs as needed and advocate for electric public transit options with LANTA
- Complete phased EV fleet replacements
- Install expanded charging network
- Assess effectiveness of sustainable air travel policy and update with improvements as needed



4.

Waste & Procurement

INTRODUCTION

The largest share of Lafayette’s emissions comes from the procurement and use of goods and services on campus. Waste and procurement are categories within Lafayette’s indirect (scope 3) emissions. Many of these emissions originate in the production of materials such as paper, chemicals, food, and construction products, or the disposal of these goods at the end of their life. Lafayette also accounts for emissions tied to purchased services, such as legal services, consulting services, and health insurance for faculty and staff. **Because these emissions are indirect, they are among the most challenging to reduce.** Nonetheless, this section outlines strategies to meaningfully lower emissions from procurement and waste before 2035. **It begins with a vendor engagement approach, followed by plans for sustainable construction and food procurement, and concludes with strategies to divert waste from landfill.**

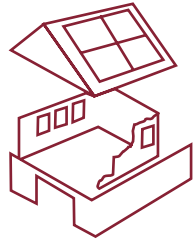


Vendor Engagement Strategy

There are two primary ways to address emissions from procurement: changing the products purchased or changing vendors. **When products or services are relatively fixed, such as health insurance, the most effective approach is to work with vendors to improve their sustainability practices.** An important first step is encouraging vendors to participate in industry groups or initiatives that support emissions reductions, such as the Science Based Targets initiative (SBTi). Ultimately, the aim is for vendor actions to translate into measurable emissions reductions in Lafayette’s inventory.

In parallel with encouraging vendors to make decarbonization commitments, **Lafayette will need to evolve its scope 3 emissions calculation methodology.** Today, the campus relies on industry-standard emissions factors to estimate each vendor’s emissions, which is appropriate for high-level emissions accounting but does not capture the impacts of vendor-specific sustainability efforts. To better reflect progress over time, Lafayette will transition toward using vendor-specific emissions data where available, prioritizing vendors with public sustainability targets, along with product-level emissions information where applicable. We will start with those vendors with whom we have strong relationships and financial ties.

Lafayette will establish a working group of stakeholders involved in procurement decisions and vendor relationship management to determine a plan for engaging these vendors, collecting the data requested for accounting, and renegotiating contracts where appropriate. While this approach to vendor management applies to all of Lafayette’s vendors, the next two sections will focus on specific procurement categories, construction, and food, which represent the highest emissions categories of all of Lafayette’s indirect emissions.



Sustainable Construction Policy

As a part of CAP 3.0, Lafayette is committing to developing and implementing a sustainable construction policy for new facilities and major renovations on campus. **Ensuring Lafayette buildings are built with sustainability in mind moving forward will not only reduce scope 3 emissions but also mitigate floods and improve biodiversity on campus.** The majority of construction emissions come from fossil fuels burned in the production of the materials used, such as steel and concrete. As such, the focus of a sustainable construction policy is ensuring the materials used to build Lafayette have the lowest emissions intensity possible. Lafayette is also targeting a 75% waste diversion from landfill threshold for construction waste, a target that has been achieved by 65% of institutions reporting through AASHE STARS volume 2.2, and 56% for schools reporting in volume 3.0 including George Washington University, University of Massachusetts Lowell, and George Mason University.

1

THE FIRST STEP in reducing construction emissions is understanding the emissions associated with the materials and processes Lafayette is currently using. The best way to discern this would be to work with Lafayette’s primary contractors to have them consider during the design phase the emission factors of different products when selecting construction materials. If contractors are not able to provide these numbers to Lafayette, Lafayette can work with student groups to conduct life-cycle emissions analyses on the materials. This analysis will be part of the foundation of developing, accounting for, and tracking the effectiveness of Lafayette’s new sustainable construction policy.



2

SECONDLY, we will use best practices from sustainable building standards, such as LEED, to inform our policies. Lafayette currently has a minimum building standard of LEED Silver for the construction of new buildings, however, we will reexamine that commitment to see what can be achieved to reduce our emissions. We will work with contractors to understand what alternative materials (i.e., green steel, bamboo, hempcrete) are realistically available to Lafayette, and how their use might change capital costs for new projects. Once we have collected this information, a sustainable construction working group will convene to draft and integrate feedback on the policy to obtain approval from Lafayette’s senior leadership by 2030. Once adopted, we will apply the policy to all new construction projects and major renovations (e.g., more than \$5M or as defined by the working group), which will be especially pertinent as we build out the Metzgar campus.

In addition to the use of life-cycle emissions factors and sustainable construction materials, our sustainable construction policy will include recommendations to advance biodiversity and resiliency in our capital projects. This could include integrating permeable surfaces to reduce flooding and runoff in our parking lots or green roof infrastructure on new buildings. More detailed proposals for resiliency and biodiversity projects are outlined in section 9.





Sustainable Food Procurement

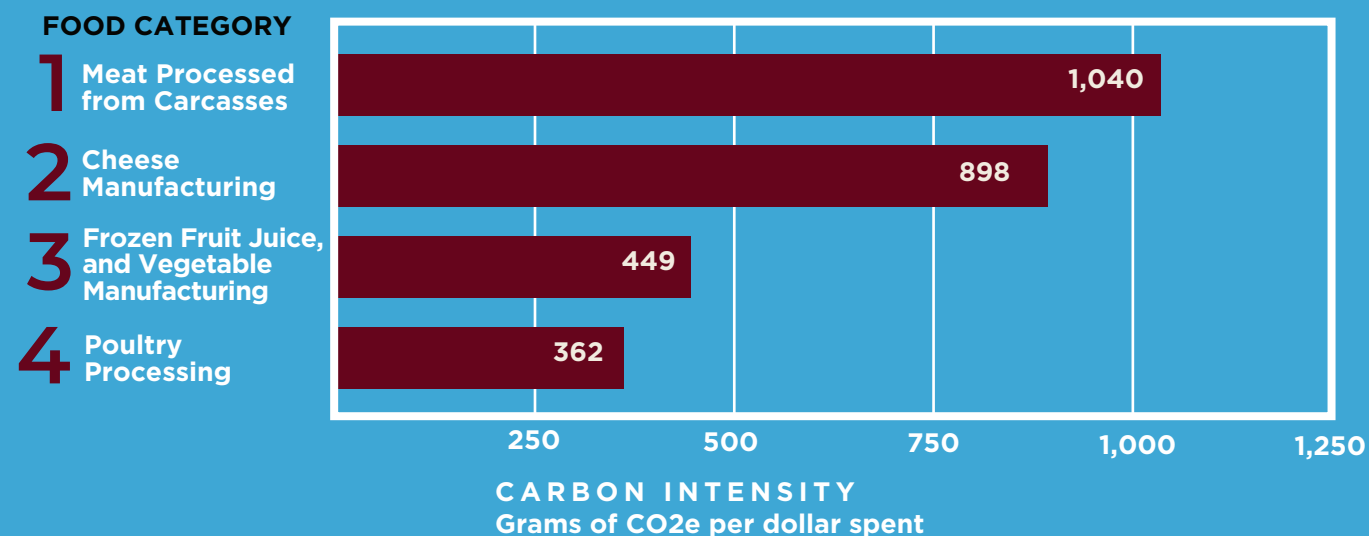
Lafayette's second largest indirect emissions category is food, representing about 4% of Lafayette's total emissions.

These emissions result from the farming, raising, and processing of animals and crops consumed by Lafayette in dining and events. If Lafayette can reduce these emissions, it will not only contribute to carbon neutrality, but also support the environment outside of Lafayette's campus, reducing top soil loss, increasing habitat for native species, and promoting sustainable water use. For Lafayette to achieve these aims, we must work with our dining providers to better understand our food procurement and make changes to sustainable choices.

As with all our sustainable procurement ambitions, the first step will be collecting data on the food we consume at Lafayette and the life-cycle emissions associated with it. We currently estimate the scope 3 emissions from our food based on how much we spend, but are beginning efforts to increase the granularity such that we are basing emissions on food mass and specific emissions factors from vendors. This evolution is particularly important as Lafayette expands sustainable food purchasing to items such as organic or fair-trade options, which may increase overall food costs. Updating the methodology will ensure the higher spend associated with more sustainable choices does not incorrectly appear as an increase in emissions.

We have identified the top four food categories to target based on spend, as shown below, and are working to obtain more granular mass data to inform decision-making and tracking progress on food procurement KPIs.

Food Category Breakdown by Carbon Intensity



Once we have worked with our dining provider to better understand our current practices, the food procurement working group will draft a sustainable food procurement policy for the College. This policy will take into account the best practices outlined by organizations like WRI and its CoolFood pledge. For example, it is recommended we pursue reductions in highly carbon-intense foods such as red meat and dairy before targeting fruit and vegetable processing. We've also seen recommendations to adopt a sustainable sourcing target, which would mean a percentage of our food spend will be on products certified as sustainable and having a low-carbon intensity. Using these insights, our policy will be drafted in conjunction with dining and dedicated students, and approved by leadership to ensure the goals are realistic and reflective of the desires and capabilities of campus personnel, while also striving toward the ambitions of industry best practices.



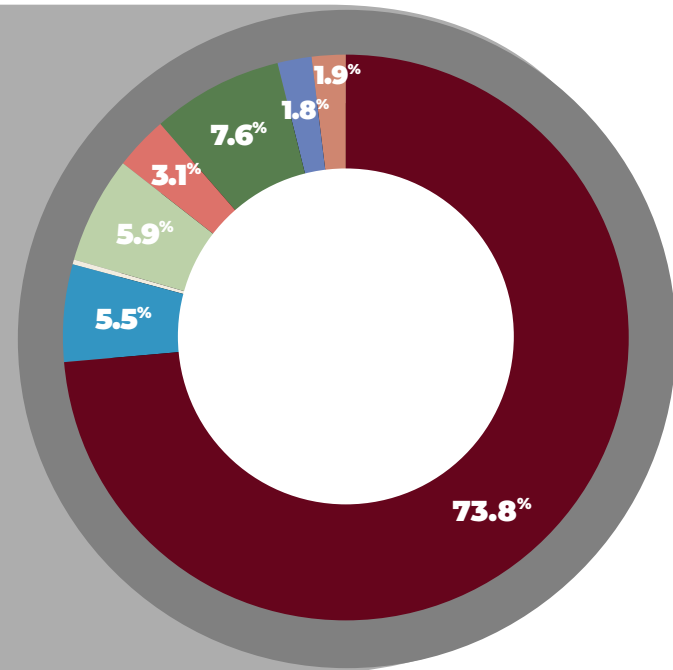
A major contribution to Lafayette's sustainable food commitment will be the expansion of LaFarm. LaFarm, located on the Metzgar campus, is 3 acres of land that produces over 20,000 pounds of food annually. This food is sold at a pay-what-you-can rate to local families and the College community, and sold to our dining provider, who sells it in campus retail locations like the ECO Cafe and incorporates items into meals served at dining halls. LaFarm currently has one full-time hire and 10-15 student employees, but as the campus commits to sourcing a larger percentage of food locally, LaFarm would need to expand to about nine acres of buildout with support from five additional full-time hires and additional equipment. This investment in LaFarm will pay back in the form of avoiding high distribution costs from typical food vendors. Another benefit of using food from LaFarm is that sustainable agricultural practices on the farm can help mitigate flooding and topsoil depletion at the Metzgar campus. Switching to more local food vendors like LaFarm cuts down on air pollution associated with regularly trucking large quantities of food to campus from far away.





Waste

Lafayette's Waste Stream Report for 2024-2025



- Landfill
- Single Stream Recycling
- Specialty Recycling
- Construction Recycling
- Food Waste
- Green Waste
- Waste to Energy
- Reuse



As a part of CAP 2.0, Lafayette committed to achieving a 60% waste diversion rate by 2035, with an interim target of 40% by 2030, and we are continuing that commitment as a part of this Climate Action Plan. As shown in the chart at left, we are currently diverting approximately 26% of our waste away from landfill by either composting, recycling, or reusing it. Lafayette aims to reduce the amount of waste sent to landfill, as landfilled waste decomposes and releases potent greenhouse gases that are reflected in the College's emissions inventory. **By 2035, Lafayette intends to minimize landfill disposal as much as possible, not only to support our carbon neutrality goals, but also to help reduce broader air and water pollution impacts in surrounding communities.**

In parallel to this additional data collection, we will establish a dedicated waste working group to make decisions about where it is most crucial to add compost bins around campus and other standardization measures to ensure we are diverting as much waste away from landfills as possible (bins, signage, co-location, etc.). With our current staffing and food waste collection infrastructure and processes, we are not capturing all of the existing food waste that could be diverted to the College's composting vessel and will need to add to our resourcing for expanded food waste collection on campus. Our central compost facility is well equipped to support all the composting needs on campus, and we currently only use about 20% of its capacity. If we increase our compost output, we are able to support LaFarm, which uses compost for recycling nutrients from our food waste back into the soil. As a part of developing this CAP, we also identified the opportunity to collaborate with our Easton community partners on their composting needs.

In the coming years, we will work on collecting more granular and accurate data about our waste, partnering with our trash haulers, campus staff, and interested students to bolster this data. Our first step will be to analyze existing waste audit data and determine the most frequently wasted products. Documentation of this audit will help us identify ways to reduce waste through better labeling or education, or increased infrastructure for recycling and compost. We will also have students review waste practices in our kitchens to help discern any improvements to food waste. Additionally, we will develop and implement a collaborative training program between facilities and sustainability for custodial staff to ensure waste practices continue to meet our policy standards.



EDUCATIONAL OPPORTUNITIES

Adopting these waste and procurement decarbonization strategies will create rich, hands-on educational opportunities that connect classroom learning to real-world sustainability challenges across campus. Students will be able to participate directly in life-cycle emissions analyses of construction materials, vendor sustainability assessments, and the evolution of Lafayette's scope 3 emissions accounting, integrating this work into STEM courses, environmental studies, economics, and policy-focused classes. Expanded sustainable food procurement and the growth of LaFarm will provide experiential learning in sustainable agriculture, food systems, biodiversity, and climate-smart land management, while also supporting student employment and research. Similarly, enhanced waste audits, composting operations, and zero-waste initiatives will allow students to engage in applied research, data analysis, behavior-change campaigns, and operational improvements, using the campus itself as a living laboratory for climate action and systems thinking.



WASTE AND PROCUREMENT ROAD MAP

..... ✓ Immediate Term (2026-2028)

- Establish procurement working groups to review vendor sustainability metrics as they relate to our contracts
- Establish waste working group to analyze waste audits (goal to establish group by start of fall semester 2026)
- Working group to draft a waste standardization and education plan
- Schedule sustainability-focused meetings with four priority vendors
- Update 2026 GHG accounting methodology with more granular vendor data where applicable (specifically transitioning from a spend-based to mass-based accounting methodology)
- Conduct additional waste audits specifically on locations that have not participated (e.g., dining halls, academic buildings). Analyze existing and new data.

..... ✓ Near Term (2029-2031)

- Establish specific procurement targets
- Share draft of sustainable construction and food policies with leadership for approval and alignment with Campus Master Plan
- Renegotiate vendor contracts where applicable
- Begin implementation of select WRI-recommended behavioral changes in partnership with Parkhurst dining
- Develop plan and secure funding for LaFarm expansion (additional equipment and infrastructure appropriate for the expanded acreage)

..... ✓ Medium Term (2032-2035)

- Expand campus-wide compost infrastructure collection and partner with LaFarm and local Easton farmers on compost sale and use
- Begin LaFarm expansion in conjunction with Metzgar buildout
- Increase procurement from local sources with existing vendors or partner with new vendors
- Track progress through regular waste and procurement reporting KPIs outside of standard SIMAP inventory



5.

Metzgar Net Zero Plan

INTRODUCTION

In CAP 2.0, Lafayette aspired to achieve carbon neutrality at the Metzgar campus by 2025 to demonstrate the College's commitment to climate leadership ahead of the broader campus-wide goal. While that milestone has not yet been achieved, the intent established in CAP 2.0

provides important context for the strategies outlined in this plan. The Campus Master Plan (CMP) process has given the opportunity to reimagine the future of Metzgar campus, and CAP 3.0 aims to take this into account to ensure a resilient and sustainable buildout.



The Metzgar campus presents a rare opportunity to achieve net zero by design, with eight existing facilities and 10 additional buildings planned as detailed in the draft CMP. New construction includes a 100,000-square-foot indoor track and a 40,000-square-foot indoor field, which will be built over the next 5-10 years. Under conventional design, this buildout would add roughly 2,300 metric tons of CO₂ per year, about the same climate impact as 500 passenger cars on the road annually, from fossil-fuel heating and purchased electricity alone, before accounting for construction materials. Because Metzgar is still being planned, early decisions around all-electric buildings, renewable energy, and supportive climate resiliency infrastructure can instead enable the campus to achieve net-zero greenhouse gas emissions by 2035. It is important to note that a Metzgar Sustainability Center is included in the initial phase (0-5 years) of the CMP, and expansion of LaFarm is envisioned in the midterm phase; thus, sustainability will continue to be a key focus of the Metzgar site into the future. Additionally, facilities where students and faculty can continue to conduct research will be incorporated into the Metzgar plan to support Lafayette's focus on campus as a "living laboratory." Due to the location of the Metzgar campus, it is important to inform Forks Township leadership of major projects and decisions at this campus. In this section, we detail four different sustainability project categories that should be implemented in Metzgar's design as this portion of campus is built out.



1

On-site Solar:

Installing on-site solar at Metzgar would help reduce reliance on grid-supplied electricity while improving energy reliability as facilities develop. Solar systems could be installed on Metzgar building rooftops, incorporated into a solar carport at the planned parking garage, and as a large ground-mounted array on available land. **Together, these installations could offset around 35%-75% of Metzgar’s electricity use and support a net zero design for Metzgar.** The solar system capacity and percentage of electricity offset will need to be verified by a solar developer during the design stage.

To implement on-site solar, Lafayette must first evaluate the full energy needs of Metzgar as buildings and facilities are constructed, in conjunction with net

metering rules for Pennsylvania Public Utility Commission. Preliminary estimates for this CAP assume a 3 MW solar array at Metzgar, which will be spread across rooftop, carport, and ground-mount systems. Building on this analysis, we will issue a request for proposals to qualified solar developers and engineering, procurement, and construction (EPC) firms, identifying priority locations. We will then select a development approach, such as direct ownership or a lease agreement for the equipment, and work with the selected provider to design and install the systems, with regular coordination and progress reviews throughout the process. Once operational, the solar systems would be monitored and maintained by a solar maintenance provider to ensure reliable performance over time.



Potential locations for on-site solar systems at Metzgar Campus

2

Sustainable Construction Policy:

Because Metzgar is an actively developing campus, construction decisions made today will have long-term implications for campus emissions. **A sustainable construction policy specific to Metzgar would help reduce emissions associated with new buildings by prioritizing energy-efficient, all-electric design and responsible material choices.** By setting clear expectations early, Lafayette can avoid locking in higher-emitting systems and ensure new facilities align with the College’s sustainability goals.

Implementation would begin by establishing a baseline for construction-related emissions and working with design and construction specialists to define sustainability requirements for new Metzgar facilities. These requirements may include continued use of LEED Silver or higher standards, limits on hazardous materials, minimum waste diversion targets, high-efficiency electric heating and cooling systems, and integration of stormwater

management practices. These requirements may also include standards for electrifying all new buildings such that fossil fuel use is substantially reduced on Metzgar campus. Coupled with renewable electricity purchase and on-site solar, electrification will result in 100% elimination of direct (scope 1) and purchased electricity (scope 2) emissions.

Lafayette would pilot this approach with the first few Metzgar buildings, evaluate results, and refine the policy before applying it consistently across future projects. Over time, the policy would guide all new Metzgar construction toward net-zero-ready performance. For existing buildings, energy efficiency measures, such as heat pumps and window replacements, will be incorporated to reduce existing natural gas use, particularly where replacing the facility’s gas-fired equipment with electric alternatives is not financially viable.



3

Eco-cultural Restoration:

The Metzgar Campus will continue to serve as a focal point for long-term, future-oriented planning at Lafayette. **As a college committed to learning through practice, Lafayette views Metzgar as a Living Laboratory and a premier site for eco-cultural restoration that extends beyond traditional landscaping or isolated native plantings.** Planned restoration efforts at the Metzgar Wellness Hub include soil regeneration, protection and revival of native meadow systems, and integrated stormwater capture strategies, as described in the following section. In addition to improving ecological function and site resilience, many of these actions offer the added benefit of carbon sequestration, as restoring vegetation and soil can allow for absorption of atmospheric carbon emissions. Together with direct emissions-reduction strategies, these efforts contribute to Lafayette's broader commitment to reducing atmospheric carbon and responding to the climate crisis through both mitigation and adaptation.

Eco-cultural restoration at Metzgar is intended to improve ecological health while also renewing the human relationship with the land. Rather than allowing campus landscapes to become eco-deserts or disconnected from their surroundings, Lafayette seeks to make restoration an active, ongoing, and collaborative process. The College aspires to lead within higher education by demonstrating how land stewardship can generate positive

environmental, social, and cultural outcomes. Central to this approach is restoring natural ecological processes alongside meaningful human engagement with place. Building on the College's and LaFarm's existing relationships with the Delaware Nation and the Delaware Tribe of Indians, Lafayette will seek to deepen and expand partnerships to ensure restoration efforts are culturally informed, socially just, and reflective of the land's history. Successful models of Eco-Cultural Restoration exist, such as the University of Oregon's Many Nations Longhouse and University of Minnesota's Great Lakes stewardship initiatives with Anishinaabe peoples. The development of Metzgar as a hub for interdisciplinary environmental learning, where indoor gathering spaces connect directly to restored landscapes, offers a unique opportunity that few institutions are positioned to realize. Additionally, the expansion and growth of LaFarm has potential for carbon sequestration through regenerative agriculture (approximately 4-10 mtCO₂e/year for a 9-acre expansion).

As future land-use decisions are made at Metzgar, eco-cultural restoration will be prioritized as the preferred approach. Through this work, Lafayette aims to model how campus lands can function not only as physical assets, but also as places of learning, restoration, and leadership in responding to a changing climate.



4

Green Stormwater Infrastructure:

Green stormwater infrastructure at the Metzgar Wellness Hub would help manage rainfall and flooding while enhancing the district's natural landscape. Features such as rain gardens, meadow edges, and subsurface storage can slow and absorb stormwater, reduce runoff, and promote groundwater recharge. Furthermore, these measures can be designed to complement other planned Metzgar amenities, such as campus trails and afforestation.

To implement this approach, Lafayette will use the finalized Metzgar site layout to develop a detailed stormwater and flood-buffer plan around Metzgar fields and LaFarm. High-impact features, such as rain gardens and meadow plantings, would be installed first in priority areas to divert and retain runoff. Additional elements, including subsurface

storage and retention systems, could be added over time to enable stormwater reuse and improve overall performance. Native plantings would be incorporated to support vegetation growth, biodiversity, and long-term landscape resilience, with ongoing monitoring to ensure these systems function as intended. The estimated carbon sequestration impact from meadow conversion, bioretention, and native plantings is approximately 1-5 mtCO₂e/year based on applying these measures to 5 acres of area.

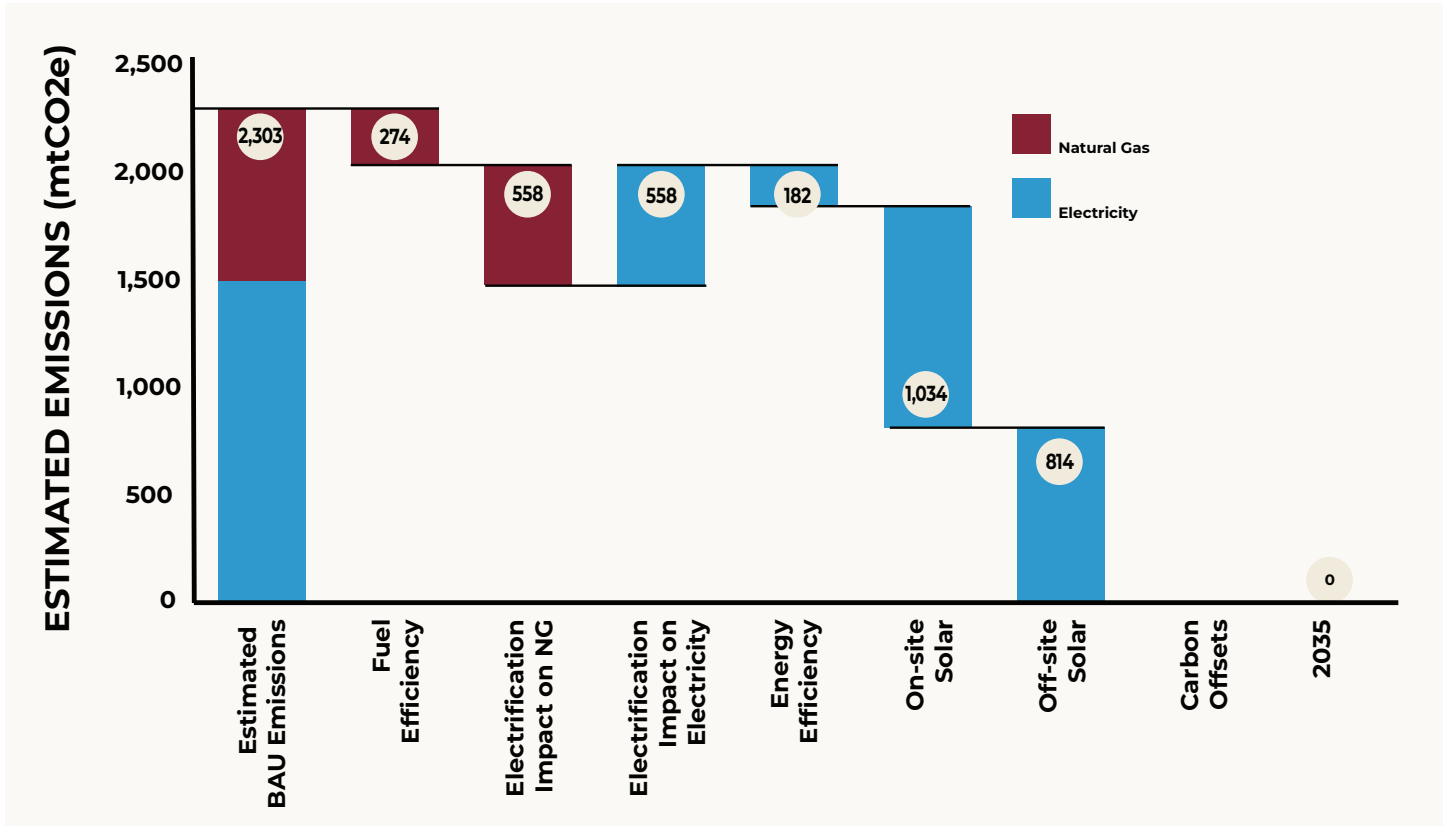
Additionally Lafayette will create a working group to review and update the existing Sustainable Landscaping Policy document. The policy document will outline standards for water use, herbicide and pesticide use and content, as well as an update to the existing list of acceptable native species for planting.





EDUCATIONAL OPPORTUNITIES

Adopting this Net Zero Plan for the Metzgar Wellness Hub will significantly expand experiential and interdisciplinary learning opportunities by positioning the campus as a living laboratory for climate-positive development. Students will be able to engage directly in the planning, design, and performance evaluation of all-electric, net-zero-ready buildings; on-site solar systems; and energy-efficient retrofits, supporting coursework and research in engineering, architecture, environmental studies, data science, and public policy. Visible renewable energy installations, real-time energy dashboards, and the Metzgar Sustainability Center will enable hands-on projects focused on energy modeling, system sizing, and long-term infrastructure planning. Students and faculty may participate in planting initiatives, ecological monitoring, or planning efforts tied to Metzgar’s development. In parallel, eco-cultural restoration and green stormwater infrastructure will create opportunities for field-based learning in ecology, climate resilience, land stewardship, and Indigenous studies, including soil regeneration, native meadow restoration, and community-engaged research. Together, these initiatives will allow students to connect theory to practice, contribute meaningfully to campus decision-making, and develop the skills needed to lead in sustainability, climate adaptation, and regenerative design.



Metzgar emissions reduction pathway based on projected emissions

METZGAR NET ZERO ROAD MAP

Immediate Term (2026-2028)

- Request data from prior vendors on life-cycle emissions
- Forecast electricity demand projections
- Draft Sustainable Construction Policy for all new Metzgar facilities (emphasizing importance of LaFarm and ensuring protection of nature-based areas in all facilities expansion)
- Assess Metzgar site and coordinate industrial agriculture removal and soil restoration in conjunction with Campus Master Plan
- Finalize Metzgar site plan and layout with sustainable construction practices and green stormwater infrastructure in mind

Near Term (2029-2031)

- Develop and construct the Metzgar Sustainability Center as an exemplar of sustainable development, the circular economy, and environmental stewardship
- Socialize pilot Sustainable Construction Policy with all relevant stakeholders and department heads
- Pilot Sustainable Construction Policy with first few Metzgar facilities, reviewing for areas to improve
- Finalize Metzgar energy demand and facilities buildout
- Run competitive RFP for rooftop, carport, and ground-mount solar and select solar provider

Medium Term (2032-2035)

- Iterate on Sustainable Construction Policy to include improvements and lessons learned from first pilot buildings
- Install on-site solar as facilities and parking spaces are built
- Prioritize developing meadow edges and rain gardens, then native plantings and subsurface storage
- Complete main campus on-site stormwater retention projects



6.

Long-Term Ambitions (Post 2035)

INTRODUCTION

The strategies outlined in this CAP are designed to prioritize direct emissions reductions, environmental co-benefits, and infrastructure transformation before 2035, when Lafayette intends to achieve carbon neutrality. **The period beyond 2035 represents a shift from large-scale decarbonization projects to long-term stewardship.** Rather than introducing entirely new solution categories, post-2035 efforts will focus on maintaining clean infrastructure, managing remaining indirect emissions, and adapting to evolving best practices in climate action. Looking toward 2050 and beyond, Lafayette anticipates that continued grid decarbonization and cleaner markets will reduce external emissions drivers, and the College will remain engaged by advancing best practices, advocating for supportive policies, improving emissions tracking, and collaborating with higher education peers, alumni, and external partners.

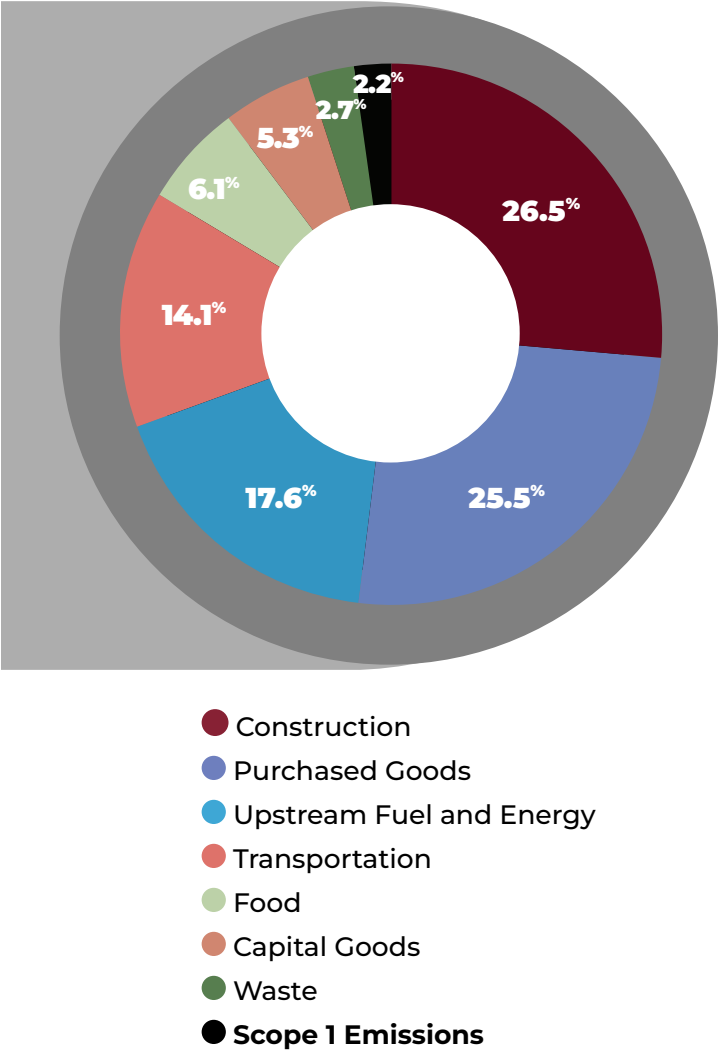
Campus Operations After Carbon Neutrality

Once Metzgar has achieved carbon neutrality and the main campus has completed the transition away from fossil fuels, Lafayette’s operational emissions profile will change significantly. Nearly all campus energy use will be electric and supplied by renewable energy, and the use of fossil fuels for heating, electricity, and transportation will be largely eliminated. **At that point, Lafayette’s primary operational focus will be on maintaining and upgrading clean energy systems, ensuring long-term performance of electrified buildings and infrastructure, and continuing to integrate resilience, efficiency, and lower-emission procurement into campus planning and operations.**

Post-2035 actions will emphasize asset management, life-cycle planning, and system optimization. This includes maintaining renewable energy procurement, monitoring building and transportation performance, and incorporating new technologies as they become viable and cost-effective.



Lafayette’s estimated remaining emissions in 2035



Long-Term Management of Unabated Emissions

After 2035, the majority of remaining emissions will come from indirect sources (scope 3), such as procurement, travel, and other activities outside of direct campus operations. While the strategies outlined in this CAP are expected to meaningfully reduce scope 3 emissions before 2035, some portion of these emissions cannot be fully abated by 2035.

To address these remaining emissions, Lafayette will source carbon offsets to maintain carbon neutrality. Offset purchases will not be treated as static or purely transactional. Instead, Lafayette will regularly evaluate offset options to prioritize high-quality projects that deliver long-term climate benefits, durability, and co-benefits where appropriate. As tools, data, and market options improve, the campus will also continue to explore opportunities to reduce scope 3 emissions at the source, complementing the use of offsets rather than relying on them alone.

Continuous Climate Action Plan Improvement

Climate action is an ongoing process, not a one-time achievement. **To remain aligned with climate science, regulatory developments, and institutional priorities, Lafayette will update the Climate Action Plan on a five-year cycle.** Each update will reassess emissions data, evaluate progress toward goals, and incorporate new strategies or technologies that bring improvements to campus life and the environment. These periodic updates will ensure climate considerations remain embedded in long-term campus decision-making and capital planning.

This long-term outlook reflects Lafayette’s broader institutional values and its more than 200-year history and vision of stewardship and leadership. By pairing near-term action with long-range thinking, regular reassessment, and community engagement, Lafayette positions itself not only to meet its climate commitments, but to contribute meaningfully to a more sustainable future that extends well beyond 2050 and supports generations of students to come.

CONCLUSION

Climate Action Plan 3.0 represents a critical chapter in Lafayette College’s ongoing response to the climate crisis. Achieving carbon neutrality by 2035 and building a resilient, sustainable campus will require sustained commitment, continued investment, and collaboration across the entire Lafayette community. **The strategies outlined in this plan are ambitious, but they are grounded in data, informed by campus expertise, and aligned with the College’s mission and strategic priorities.**

Implementation of CAP 3.0 will depend on translating goals into action through coordinated planning, clear accountability, and regular evaluation. Progress will be monitored through established reporting mechanisms, including annual sustainability reporting, with updates used to refine strategies as conditions and opportunities evolve. Importantly, CAP 3.0 recognizes that climate action is not a one-time effort, but an iterative process that must respond to new knowledge, technologies, and community needs.

Lafayette’s approach to climate action extends beyond operational change. Through teaching, research, and engagement, the College will continue to use the campus as a living laboratory, linking academic inquiry with real-world solutions and preparing students to lead in a rapidly changing world. Climate action at Lafayette is inseparable from educational excellence, equity, and community well-being.

As Lafayette moves forward with CAP 3.0, the College reaffirms its commitment to leadership, transparency, and shared responsibility. **Addressing climate change is one of the defining challenges of our time, and CAP 3.0 reflects Lafayette’s determination to meet that challenge with integrity, creativity, and purpose, today and for generations to come.**



GLOSSARY

Earth Science & Global Frameworks

Greenhouse Gases (GHGs):
Atmospheric gases—both naturally occurring and human-generated—that absorb and emit thermal infrared radiation, trapping heat within Earth’s lower atmosphere. The primary GHGs driving climate change are carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), and fluorinated gases.

Planetary Boundaries:
A scientific framework identifying nine fundamental biophysical processes that regulate Earth’s stability and resilience. Operating within these boundaries defines a “safe operating space for humanity.” (Primary Reference: Rockström et al., 2009)

Emissions Accounting, Metrics & Reporting

mtCO2e (Metric Tons of Carbon Dioxide Equivalent):
The standard unit for measuring carbon footprints. It converts various greenhouse gases into the equivalent amount of CO2 based on their global warming potential.

Baseline Year:
A specific historical benchmark year against which future greenhouse gas emission reductions are tracked and evaluated.

Scope 1 Emissions:
Direct greenhouse gas emissions from sources owned or controlled by the organization (e.g., central heating plant boilers, campus vehicle fleets, fugitive refrigerants).

Scope 2 Emissions:
Indirect emissions generated off-site from purchased electricity, heating, or cooling consumed by institutional facilities.

Scope 3 Emissions:
All other indirect upstream and downstream emissions across the value chain (e.g., student/employee commuting, university-funded travel, waste generation, food and beverage procurement).

Direct Emissions Reductions:
Quantifiable decreases in Scope 1 greenhouse gas emissions released directly from sources owned or controlled by the reporting institution. Achieved through on-site operational interventions—such as building efficiency retrofits, thermal electrification, fuel switching, and fleet decarbonization—rather than third-party carbon offsets or indirect green power purchases.

Spend-Based vs. Mass-Based Method of Emissions Reporting:

Spend-Based Method:
A top-down carbon accounting approach that estimates Scope 3 supply chain emissions by multiplying financial expenditure by industry-average carbon intensity factors. Ideal for broad screening when physical data is unavailable.

Mass-Based (Activity-Based) Method:
A bottom-up approach that calculates emissions using the actual physical mass, volume, or weight of materials purchased or waste produced multiplied by material-specific emission factors. Yields significantly higher precision for targeted reduction strategies.

Climate Strategy, Targets & Resilience

Carbon Neutrality:

Achieving net-zero carbon dioxide emissions by balancing operational emissions generated with an equivalent amount sequestered, removed, or offset.

Net Zero:

A broader standard requiring deep structural emission reductions (typically 90%+) across Scopes 1, 2, and 3, using carbon removal exclusively for remaining residual emissions.

Climate Mitigation:

Actions taken directly to reduce or eliminate greenhouse gas emissions to slow the pace of global warming.

Climate Adaptation:

Adjustments made to physical infrastructure, policies, and operations to minimize damage caused by actual or anticipated climate impacts.

Resilience:

The capacity of an institution or community to withstand, recover from, and adapt to climate-related stressors and extreme weather events (e.g., extreme heat, high winds, localized flooding).

Climate Risk Assessment:

A systematic evaluation of physical risks (e.g., severe weather, heat stress) and transition risks (e.g., regulatory shifts, rising carbon costs) posed by climate change to guide long-term capital planning and operational emergency preparedness.

Emissions Reduction Pathways:

Structured, multi-phase technical roadmaps outlining how an organization will systematically lower its greenhouse gas emissions over time to meet specific targets (e.g., Net-Zero or Science-Based Targets).

Afforestation:

The process of establishing a new forest by planting trees or seeding on land that historically did not contain forest cover (typically for 50+ years). Serves as a nature-based strategy to sequester atmospheric CO2, reduce soil erosion, improve watershed health, and restore ecosystem biodiversity.

Campus Operations, Infrastructure & Energy

Decarbonization:

The process of transitioning away from fossil fuel combustion to carbon-free energy sources across building thermal systems, power grids, and transportation fleets.

Electrification:

Replacing fossil fuel-powered equipment (such as gas boilers, building furnaces, and internal combustion vehicles) with electricity-driven alternatives (like heat pumps and electric vehicles) to leverage clean power grids.

Renewable Energy:

Energy derived from naturally replenishing sources—such as solar, wind, geothermal, and low-impact hydro—generating little to no operational emissions.

Centralized vs. Decentralized Solutions (Heating & Cooling):

Centralized Solutions:

District thermal systems where heating or cooling is generated at a primary plant and distributed to multiple buildings via underground pipe networks. Offers economies of scale and streamlined maintenance, though subject to thermal distribution losses.

Decentralized Solutions:

Independent HVAC infrastructure (such as building-level geothermal heat pumps, variable refrigerant flow systems, or modular boilers) installed directly at individual facilities. Eliminates pipe distribution losses, increases operational redundancy, and allows phased building upgrades.

LEED (Leadership in Energy and Environmental Design):

A green building rating system developed by the U.S. Green Building Council (USGBC) that evaluates sustainable design, construction, and operations across tiers from Certified to Platinum.

Green Stormwater Infrastructure (GSI):

Engineered landscape features designed to capture, filter, absorb, and reuse stormwater runoff near its source by mimicking natural hydrologic cycles (e.g., bioswales, rain gardens, green roofs, permeable pavement).

Procurement & Market Instruments

Power Purchase Agreement (PPA):

A long-term contract (typically 10 to 25 years) between an electricity buyer and a clean energy developer who finances, builds, and operates a renewable energy asset, securing predictable energy rates and adding clean power to the grid.

Renewable Energy Certificate (REC):

A market-based instrument representing the environmental attributes of one megawatt-hour of electricity generated from renewable sources.

Carbon Offset:

A verified certificate representing one metric ton of carbon dioxide emissions reduced or sequestered by an external project, used to compensate for unavoidable operational emissions.

Waste Management & Circularity

Waste Assessment or Audit:

A quantitative and qualitative audit of an organization’s waste streams conducted over a defined operational window. Measures total waste generation, analyzes waste composition through manual sorting, calculates contamination rates across categories, and identifies opportunities for source reduction and diversion.

Waste Management Plan:

A strategic policy and operational framework establishing long-term targets, infrastructure, and procedures to minimize overall waste generation and maximize material diversion from landfills or incineration (aligned with institutional standards like AASHE STARS).

ACCOUNTABILITY METRICS

Accountability metrics are essential to translating the College's CAP from ambition into action. **Clear targets, defined commitments, measurable key performance indicators (KPIs), and assigned stakeholder ownership provide the structure needed to track progress, guide decision-making, and ensure transparency** as the College advances toward carbon neutrality by 2035. By establishing how success will be measured, who is responsible for implementation, and how progress will be monitored over time, these accountability mechanisms help keep the institution aligned with its climate goals, enable course corrections when needed, and reinforce shared responsibility across campus for delivering the outcomes outlined in CAP 3.0.

Targets, KPIs, and Commitments

TARGETS	KEY PERFORMANCE INDICATORS AND COMMITMENTS
	GENERAL
Carbon neutrality by 2035	- Commit to tracking and updating GHG data as needed year-over-year - Commit to purchasing carbon offsets for all unabated emissions by 2035
	FUELS
70% reduction in scope 1 by 2035	- Full steam plant replacement by 2035 - Retrofit existing buildings and equipment with energy-efficient models
	ELECTRICITY
Maintain 100% RE through 2035	- Source renewable energy for additional electricity demand - Install additional solar arrays on main campus and Metzgar campus
100% of new buildings electric by 2035	Develop and implement sustainable construction policy for all new buildings and Metzgar
	TRANSPORTATION
Replace all new light duty fleet vehicles with EV equivalent	- Transition campus-owned vehicles to electric models - Expand EV-charging infrastructure at campus parking lots
10% reduction in indirect travel emissions by 2035	Commit to low-carbon alternatives for commuting and business-related travel (public transit, electric campus shuttles)
	PROCUREMENT
Set a sustainable food target, between 15%-25%, in line with CoolFood Pledge by 2027	- Build out 9 acres of LaFarm and increase LaFarm resourcing - Construct updated menu with dining team to reduce meat and dairy - Renegotiate food vendor contracts as needed to support more local vendors
50% of vendors have sustainability targets by 2035	- Reevaluate food procurement strategy - Review vendor contracts
100% of new buildings and renovations use sustainable materials by 2035	Develop and implement sustainable construction policy for all new buildings and Metzgar
	WASTE
40% diversion from landfill by 2030	- Conduct food, lab, and construction waste audits - Expand compost infrastructure to areas outside of dining
60% diversion from landfill by 2035	Work with construction vendors to target 75% waste diversion threshold for construction waste
	RESILIENCY
Develop all four nature-based resiliency solutions as laid out in the Resiliency Adaptation section	Install meadow edges, rain gardens, tree and native plantings in conjunction with Campus Master Plan initiatives

Climate Solutions and Key Stakeholders

SOLUTION CATEGORY	SOLUTIONS	KEY STAKEHOLDERS
ENERGY SOLUTIONS	- On-site solar - Metzgar on-site solar - Virtual Power Purchase Agreement (VPPA) - Energy efficiency upgrades - Campus core cooling network	- Athletics - Admissions - City Partners - Procurement - Facilities - Finance - Legal - Metzgar Planning Team - Operations - Renovation Contractors and Consultants - Students and Faculty - Student Life Directors - Sustainability
STEAM PLANT REPLACEMENT	- Air-source heat pump - Geo-exchange - Cogen or fuel cell + carbon capture	- Facilities - Finance - Operations - Procurement - Residential Life - Sustainability
TRANSPORTATION SOLUTIONS	- Public transit - EVs and charging stations - Electric shuttles - Air travel policy	- Accessibility - Athletics - Communications - Easton Coach - Facilities - Finance - LANTA - Office of Inclusion and Diversity - Office of International and Off-Campus Education - Sustainability
WASTE AND PROCUREMENT SOLUTIONS	- Sustainable food procurement - Waste diversion - Sustainable Construction Policy - Metzgar sustainable construction	- Admissions - Athletics - Campus Dining Services - City of Easton - Facilities - Finance - Metzgar Planning Team - Procurement - Students, Faculty, and Staff - Sustainability/LaFarm - Lehigh Valley Association of Independent Colleges (LVAIC)
RESILIENCY ADAPTATION MEASURES	- Bushkill Creek Greenway - Green stormwater infrastructure - Parking lot transformation - Campus core cooling network	- Athletics - City Partners - Communications - Facilities - Federally recognized Lenape Nations - Finance - Metzgar Planning Team - Procurement - Resident Life - Students, Faculty, and Staff - Sustainability
CARBON OFFSETS	Carbon Offsets	- CAP 3.0 Steering and Advisory Committee - Finance - Procurement - Sustainability

APPENDIX A

CAP Alignment With Strategic and Campus Master Plan’s

CAP 3.0 PRINCIPLE	DESCRIPTION	STRATEGIC PLAN ALIGNMENT How each CAP 3.0 Principle relates to one or more Strategic Plan Priority	CAMPUS MASTER PLAN ALIGNMENT How each CAP 3.0 Principle relates to one or more Campus Master Plan Guiding Principles
Align Operations With Planetary Boundaries	Use systems thinking and life cycle analysis to enable high biodiversity and low carbon practices.	• Experience & Collaboration: Easton, the Lehigh Valley, and the Globe • Cultivating Connections: Inclusivity, Belonging, and Stewardship • Strengthening Our Infrastructure: People, Process, and Place	• Better Leverage Current Assets • Cultivate a More Sustainable Mindset • Strengthen Both Local and Regional Connections
Elevate Experiential Learning	Foster robust curricular and co-curricular experiences that invigorate future climate leaders to adapt to and mitigate climate change.	• Democracy & Its Technologies: History, Design, and Civic Practice • Experience & Collaboration: Easton, the Lehigh Valley, and the Globe	• Better Leverage Current Assets • Cultivate a More Sustainable Mindset
Enhance Teaching & Scholarship	Provide students and faculty with resources across all disciplines to leverage expertise for emerging climate challenges.	• Building Into the “And”: Liberal Arts, Engineering, and Interdisciplinarity • Democracy & Its Technologies: History, Design, and Civic Practice • Strengthening Our Infrastructure: People, Process, and Place	• Support Lafayette's Culture of 'And' • Focus on Student, Faculty, and Staff Wellness & Success
Collaborate on Community-Centered Solutions	Enable just and inclusive nature-based solutions that catalyze local, regional, and global community action.	• Experience & Collaboration: Easton, the Lehigh Valley, and the Globe	• Strengthen Both Local and Regional Connections
Ensure Transparent & Inclusive Decision-Making	Promote diverse perspectives and robust accountability in the pursuit of climate and ecological strategies.	• Cultivating Connections: Inclusivity, Belonging, and Stewardship • Strengthening Our Infrastructure: People, Process , and Place	• Cultivate a More Sustainable Mindset • Focus on Student, Faculty, and Staff Wellness & Success

APPENDIX B: MASTER TIMELINE

SOLUTIONS	IMMEDIATE TERM (2026-2027)	NEAR TERM (2027-2030)	MEDIUM TERM (2030-2035)
POTENTIAL STEAM PLANT SOLUTIONS	Commission detailed engineering study to determine size, design, and refined costs for centralized systems. This study would help provide clarity to the uncertainties listed in the sections above. Begin forecasting exercise of future electricity demand based on chosen pathway.	Initiate electrical upgrades and panel improvements as required to support electrification. Begin phased deployment of air source heat pumps, starting with peripheral buildings that already have sufficient electrical capacity. Source additional renewable electricity through onsite solar or virtual power purchase agreements (VPPAs) to offset anticipated increased electric demand from air source heat pumps. Develop installation plan and schedule for centralized solution. Begin installation of a centralized solution during summer and winter terms.	Finalize installation and commissioning of all air source heat pumps and/or centralized solution. Complete steam plant retirement and remove redundant infrastructure. Renewable electricity projects come online to support additional electric load. If applicable, finalize vendors for transport and sale of end use captured carbon.
ELECTRICITY SOLUTIONS	Develop thermal comfort survey for academic year 26-27. Run competitive procurement for offsite renewable energy contract, in partnership with other higher education institutions.	Complete electricity load forecast after steam plant electrification engineering study has been completed. Complete priority energy efficiency projects over the summer and winter terms. Conduct onsite solar feasibility study. Monitor status of offsite renewables contract as it comes online.	Construct new solar installations on main campus and Metzgar according to results of feasibility study. Ensure all new construction projects have solar-ready roofing. Complete more capital-intensive energy efficiency projects such as heat pump and boiler upgrades.
TRANSPORTATION	Conduct public transit appetite survey to assess demand for new hubs. Establish working group with LANTA stakeholders to evaluate new hubs. Collect data on commuter EV usage. Review current air travel data and start gathering data on destination city travel mileage.	Assess feasibility of charging at select locations through engineering study. Lay out charging station installation plan and incorporate into campus master plan. Run competitive RFP for EV and charging station provider. Continue replacing oldest vehicles with EVs. Explore electric shuttle options that serve the Easton area. Run competitive RFP for EV shuttle options for intercampus travel based on feasibility and results from initial exploration. Draft air travel policy and socialize with department heads and relevant stakeholders.	Add public transit hubs as needed and advocate for electric public transit options with LANTA. Complete phased EV fleet replacements. Install expanded charging network. Assess effectiveness of sustainable air travel policy and update with improvements as needed.

continued next page

SOLUTIONS	IMMEDIATE TERM (2026-2027)	NEAR TERM (2027-2030)	MEDIUM TERM (2030-2035)
PROCUREMENT	Establish procurement working group to review vendor sustainability metrics as they relate to our contracts. Schedule sustainability-focused meetings with 4 priority vendors. Update 2026 GHG accounting methodology with more granular vendor data where applicable.	Establish specific procurement targets. Share draft of sustainable construction and food policies with leadership for approval and alignment with campus master plan. Renegotiate vendor contracts where applicable. Begin implementation of select WRI-recommended behavioral changes in partnership with Parkhurst dining. Develop plan and secure funding for LaFarm expansion (additional equipment and infrastructure appropriate for the expanded acreage.)	Begin LaFarm expansion in conjunction with Metzgar buildout. Increase procurement from local sources with existing vendors or partner with new vendors. Track progress through regular waste and procurement reporting KPIs outside of standard SIMAP inventory.
WASTE	Establish waste working group to analyze waste audits. Working group to draft a waste standardization and education plan. Conduct additional waste audits specifically on locations that have not participated (e.g., Dining Halls, academic buildings). Analyze existing and new data.		Expand campus-wide compost infrastructure collection and partner with LaFarm and local Easton farmers on compost sale and use. Track progress through regular waste and procurement reporting KPIs outside of standard SIMAP inventory.
METZGAR	Request data from prior vendors on life-cycle emissions. Forecast electricity demand projections. Draft Sustainable Construction Policy for all new Metzgar facilities (emphasizing importance of LaFarm and ensuring protection of nature-based areas in all facilities expansion.) Assess Metzgar site and coordinate industrial agriculture removal and soil restoration in conjunction with with campus master plan. Finalize Metzgar site plan and layout with sustainable construction practices and green stormwater infrastructure in mind.	Develop and construct the Metzgar Sustainability Center as an exemplar of sustainable development, the circular economy, and environmental stewardship. Socialize pilot Sustainable Construction Policy with all relevant stakeholders and department heads. Pilot Sustainable Construction Policy with first few Metzgar facilities, reviewing for areas to improve. Finalize Metzgar energy demand and facilities build out. Run competitive RFP for rooftop, carport, and groundmount solar and select solar provider.	Iterate on Sustainable Construction Policy to include improvements and lessons learned from first pilot buildings. Install onsite solar as facilities and parking spaces are built. Prioritize developing meadow edges and rain gardens, then native plantings and subsurface storage . Complete main campus onsite stormwater retention projects.
RESILIENCY SOLUTIONS	Conduct site analyses and review any permitting restrictions. Partner with City of Easton to identify key species and develop planting strategy. Identify rooftops/building facades for green roofs and vertical gardens, prioritizing buildings with no AC.	Start planting deep-rooted native species. Prepare target lots for permeable surface installation. Upgrade electrical systems to prepare for EV chargers. Install green roofs and vertical gardens on priority buildings. Conduct tree plantings around pedestrian pathways. Begin installing meadow edges and rain gardens for stormwater infrastructure.	Introduce new wetland species. Install permeable surfaces and EV-charging stations based on planned surface maintenance and overhaul. Install onsite stormwater retention tanks. Monitor impact of new cooling infrastructure on campus energy demand.

APPENDIX C: DECENTRALIZED AND CENTRALIZED STEAM PLANT PATHWAYS

PATHWAYS	CENTRALIZED OR DECENTRALIZED	BENEFITS	LIMITATIONS	UNCERTAINTIES
AIR SOURCE HEAT PUMPS	Decentralized	Air source heat pumps offer a decentralized approach that eliminates emissions from natural gas when coupled with renewable electricity. The transition to electrically powered systems supports long-term elimination of fossil fuels and installation can be accomplished with minimal campus disruption, phased throughout summer and winter months when campus has lower activity	Transitioning to a fully electric system would increase Lafayette's reliance on electricity, likely increasing exposure to power outages. This resiliency concern can be mitigated by purchasing backup generators in case of a power outage. This increase in electricity also requires the purchase of renewable energy to prevent an increase in campus emissions.	We don't yet know how or if the electricity grid infrastructure will be upgraded, but this could have major impacts on how resilient campus electricity supply is, especially during major weather events.
GEO-EXCHANGE	Centralized	Geo-exchange systems offer an innovative and highly visible solution for Lafayette. As a fully electric system, geo-exchange results in total elimination of natural gas emissions when coupled with off-site or onsite renewable electricity and supports long-term elimination of fossil fuels. Geo-exchange systems also provide higher efficiency than air source heat pumps as they utilize ground source heat pumps, which operate more reliably in extreme cold weather. Geoexchange systems can be designed in a range of sizes, creating opportunities to identify well-suited applications (for example, possibly Metzgar or the downtown arts campus).	Installing a geo-exchange system requires open space and can generate significant physical disruption to campus, especially if the system is centered around the main Quad. Due to the nature of drilling bore holes and installing underground piping, the installation may render the Quad unusable for some amount of time. As geo-exchange is a fully electric system, this would increase Lafayette's reliance on grid electricity, increasing the risks associated with power outages.	It is still unknown if the land on campus is suitable for a geo-exchange system, and land studies will need to be conducted to determine where and how large the system can be.
COGEN + CARBON CAPTURE	Centralized	A cogeneration system with carbon capture would offer a highly efficient system that can provide both heating and electricity needs for campus. The generation of power on-site would reduce Lafayette's reliance on grid electricity during power outages. Carbon capture systems also offer an additional revenue stream as the captured carbon can be sold to end-use customers (e.g., concrete manufacturers) for ultimate use and sequestration.	Installing a cogeneration system may require some amount of physical and operational disruption on campus, as underground trenching is required for new piping installation, which may result in power outages during parts of installation. There also may be sizing limitations of a carbon capture system as sufficient space is required adjacent to the cogeneration plant. Other limitations include continued reliance on fossil fuels and lower overall emissions reductions due to carbon capture systems capturing approximately 80% of CO ₂ when paired with a cogeneration system, thus requiring additional carbon offsets for the unabated portion of emissions.	The economics of the solution are contingent on market factors, such as the price of natural gas and the value of and demand for the captured carbon, which are highly uncertain and subject to change over time. It may be hard for Lafayette to ensure the end-use consumer of the captured carbon would use it in a way that it is permanently sequestered.
FUEL CELLS + CARBON CAPTURE	Centralized	Fuel cells paired with carbon capture would offer a highly efficient system that can provide both heating and electricity needs for campus. The generation of power on-site would reduce Lafayette's reliance on grid electricity during power outages. Carbon capture systems also offer an additional revenue stream as the captured carbon can be sold to end-use customers (e.g., concrete manufacturers) for ultimate use and sequestration.	Installing fuel cells may require some amount of physical disruption on campus, as underground trenching is required for new piping installation. There also may be some sizing limitations of a carbon capture system as sufficient space is required adjacent to the fuel cells. Other limitations include continued reliance on fossil fuels and lower overall emissions reduction due to carbon capture systems capturing approximately 90% of CO ₂ when paired with a cogeneration system.	All uncertainties listed under Cogen+Carbon Capture in addition to the following: It is unclear how evolving technology might allow for campus to switch from natural gas to hydrogen fuel cells, and fuel cell technology is continuing to evolve and uncertainty around reliability and long-term performance is still a limitation.

APPENDIX D: SCOPE 3 UPDATES

SCOPE 3 SUBCATEGORY	CAP UPDATE	IMPACT ON EMISSIONS SUBCATEGORY
Purchased Goods and Services (PGS)	Included all spend groups rather than just 5	Increased by 643%*
Capital Goods	Included for the first time in 2024 baseline	New category
Fuel and Energy-Related Emissions	No changes	No changes
Upstream Transportation	Included for the first time in 2024 baseline	New category
Waste	No changes	No changes
Travel	Included more travel categories than just 2	Increased by 77%*
Commuting	More granular commuting data	Increased by 297%*
Downstream Categories (transport, sold products, franchisees, investments)	Not included in inventory	No changes

*These increases are generally due to changes in more comprehensive reporting methodologies rather than changes in activity.

APPENDIX E: CLIMATE RISK SUMMARY

EXPOSURE	HAZARD	IMPACTED ASSETS
HIGH	Extreme Heat	All assets, particularly housing without AC
HIGH	Rainfall and Riverine Flooding	11 main campus assets, particularly those closest to Bushkill Creek, and 4 assets in the athletic complex
MODERATE	Wildfire Weather	All assets projected to experience the same changes to wildfire weather
MODERATE	Landslides	All main campus assets projected to experience the same number of landslide days
MODERATE	Extreme Wind	All assets projected to experience the same change to maximum windspeeds
MODERATE	Extreme Cold & Water Stress	No direct assets but potential biodiversity impact to LaFarm