NACUFS (2026)
Carbon Neutrality

Arianna Cooper

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Entry details

Entry Name:	Arianna Cooper
Institution Name:	NYU
Entry Completed By *(name and position)*:	Arianna Cooper Director of Sustainability
Email Address:	arianna.cooper@compass-usa.com
Phone Number:	+13017584486
Address:	33 Third Avenue
City:	New York
State:	New York
Zip Code:	10003
Country:	United States of America

Essay:

> NYU Eats: Advancing Carbon Neutral Dining Through Behavior, Menu Design, Procurement Strategy, and Equipment Electrification
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> As universities intensify efforts to reduce food-related greenhouse gas emissions, NYU Eats continues to advance a comprehensive approach to climate action. Building on institutional commitments and citywide partnerships, NYU Eats has launched a series of initiatives focused on empowering behavior change coupled with strategic menu designs and procurement shifts leading to an overall reduction in food-related emissions and increase of plant-based spend. Complementing these food-focused efforts, NYU Dining also conducted a comprehensive review of our Scope 1 operational emissions. As a result, we transitioned one of our popular All-You-Care-to-Eat dining locations from gas-powered equipment to a fully electric kitchen. This was an important step in reducing direct operational emissions and advancing more sustainable campus dining operations.
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> Supporting Institutional and Citywide Climate Commitments
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> NYU Eats' central sustainability strategy is based around our participation in the NYC Plant-Powered Food Challenge (PPFC) and Coolfood Pledge. The Plant-Powered Food Challenge led by the NYC Mayor's Office of Food Policy and Coolfood Pledge share a commitment to reduce our food-related carbon emissions by 38% per calorie by 2030.

Our most recent data demonstrates measurable and accelerating progress:

Carbon Reduction (per calorie): Achieved a 17.22% reduction in carbon emissions per calorie, an increase of 1.69% improvement over the previous year, moving us toward the 38% target by 2030.

Ethical & Sustainable Spend: Increased to 5.2%, up from 3.71% the previous year

Plant-Based Product Spend: Increased to 25.35%, up from 23.52% the previous year

These results reflect the combined impact of menu engineering strategies, procurement adjustments, plant-forward defaults, and behavioral initiatives. Together, they demonstrate that NYU Eats' climate commitments are not aspirational. These strategies are measurable, data-driven, and advancing year over year toward our 2030 carbon reduction goals.

Menu Engineering as Climate Strategy

NYU Eats has implemented systemic menu engineering strategies that reflect NACUFS carbon neutrality principles. Across NYU's internal cafés, beginning in Fall 2025, oat milk is now the default milk option for specialty drinks, with dairy available upon request. This shift was specifically requested by the NYU Animal Rights student club. NYU Eats worked closely with this student club to guide the storytelling to the larger student body. This simple default shift reduces the carbon footprint of high-volume beverage consumption, normalizes plant-based alternatives, and leverages behavioral science to encourage lower-carbon choices without limiting autonomy. Collectively, we decided on the "less is more" marketing strategy, where we would highlight that a drink contains oat milk and students would be able to request another milk option at the cashier. We noticed through our average Grubhub sales on specialty drinks that over 80% did not alter their milk option when ordering. This transition further reinforces the movement away from the beef and dairy industry and suggests a broader implication: when sustainable choices are made convenient and accessible, students are inclined to select the more carbon-friendly option.

NYU Eats also follows Greener by Default principles in menu design by listing plant-based proteins before meat-based proteins, highlighting plant-forward dishes prominently, and structuring menus to make lower-carbon choices more visible and appealing. This subtle but intentional sequencing supports climate-conscious decisions while preserving full choice. Greener by Default's research consistently shows that menu placement and framing significantly influence purchasing behavior.

Beyond substitution, NYU Eats is actively evaluating ways to reduce the overall portion size of red meat in composed dishes and supplement protein content with lower-carbon alternatives such as turkey, legumes and pulses, and other plant-based proteins. For example, traditional beef-forward recipes are being reformulated into options such as turkey lasagna. Students are continuing to ask for high protein meals and this strategy satisfies both the student's high protein needs without compromising on the overall emission intensity. In addition, we have continued our events series called Plant-Based Proteins of the Month with specific DIY tablings and teaching kitchen activations for students to intentionally learn more about their specific nutrition needs. By focusing on reformulation rather than elimination, NYU Eats balances climate responsibility with culinary quality and student expectations.

Turning Individual Choices into Measurable Climate Action

Red meat, particularly beef, is one of the highest carbon emitters due to methane emissions. Reducing red meat consumption represents one of the most immediate and scalable opportunities for lowering food-related emissions.

Through this new program, Meat in the Mid, associates voluntarily log each meal period they choose a non-red meat option. This tracking model raises awareness of the food-related carbon impacts, generates measurable participation data, allows NYU Eats to estimate avoided emissions savings, and reinforces institutional climate targets.

Procurement Alignment and Continuous Improvement

The combined impact of Meat in the Mid, default plant-based beverage options, Greener by Default menu sequencing, and protein reformulation allows NYU Eats to strategically adjust procurement patterns over time. As

red meat demand decreases, purchasing can shift toward lower-carbon proteins, expanded plant-based offerings, and suppliers aligned with lower-impact practices. Participation data from Meat in the Mid provides insights into evolving consumption patterns, enabling continuous refinement of purchasing strategies and emissions modeling.

Within this framework, each of these programs stands out as a low start-up, high-return. By leveraging existing dining infrastructure, supplier relationships, and menu formats, the program requires no new equipment and staffing and minimal training. At the same time, modest adjustments to ingredient placement and portion balance can yield substantial environmental benefits, reduce food costs, and meaningfully shift consumer behavior at scale, which are delivering returns that far exceed the initial investment. Rather than relying on a single intervention, NYU Eats has developed a layered carbon-reduction model that is measurable, scalable, and adaptable for peer institutions.

Electrifying an All You Care to Eat Location

New York University has completed a project to electrify all kitchen equipment at Lipton Dining Hall, marking an important step in the University's ongoing sustainability and infrastructure modernization efforts. Through the initiative, NYU Dining converted the entire kitchen (15 pieces of kitchen equipment,), from gas to electric. The upgrade represents a significant operational improvement designed to support efficient, modern dining facilities while advancing the University's long-term sustainability goals.

To better understand the impact of the transition, NYU Eats partnered with Antonio Saporito, a PhD candidate in Environmental Health Sciences at NYU's Graduate School of Arts and Sciences. His research examines environmental conditions in commercial kitchen settings and provided an opportunity to analyze operational changes associated with the electrification project.

Saporito's study, which is currently under peer review under Environmental Science & Technology from the American Chemical Society (ACS) has found that in NYC restaurants, the 8-hr average PM2.5 level in kitchens is 79.6 µg/m^3. For dining areas, they found a PM2.5 level of 19.9 µg/m^3. These particles are mainly made of oils, soot, and the byproducts of gas combustion from stoves. The particles that are created in the kitchen from cooking-related activities often migrate into the dining areas.

For Lipton Dining Hall, our pre-electrification data had significantly low measurements due to multiple variables - the kitchen door leading to the outside was open and a massive fan blowing air in from the outside. Our post-electrification does prove in comparison to the average NYC restaurant a reduction - the PM2.5 concentration is 51.16 µg/m^3, and for the dining hall, we found 19.27 µg/m^3. Saporito also notes in their study across the board, electrification has lowered the number of particles. This has been shown in numerous laboratory tests, as well as in his experience sampling restaurant air.

The Lipton Dining Hall project required close collaboration among campus facilities teams, dining operations staff, and researchers to convert existing equipment and integrate new systems. Moreover, as a result of the electrification, Lipton has earned additional energy points from Green Restaurant Association.

NYU Eats has created a culture of innovation through a sustainability lens. Each initiative above benchmarks a year over year commitment to our universities' climate goals and establishes tangible actions that can be replicated across the nation - one meal, one menu, and one measurable choice at a time.

Plant-based pro... 2.3 MiB

PDF

NYU Eats x NAC... 177 KiB

Plant-based Sa... 2.9 MiB

Plant-based Sa... 3.6 MiB

Teaching Kitche... 1.3 MiB

Teaching Kitche... 1.1 MiB

PDF

Meat N' the Mid... 272 KiB

Upgraded Elect... 3.1 MiB

Upgraded Elect... 3.3 MiB

Plant-based Pro... 3.1 MiB

PDF

Coolfood Pledg... 287 KiB

Attachment name
Spring 2025

https://drive.google.co...

Attachment name
Annual Report

https://drive.google.co...