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PIONEERING A NEW PATH FOR CLIMATE ACTION AND SUSTAINABILITY EXCELLENCE

Introduction From Columbia's Chief Climate & Sustainability Officer

With the urgency of confronting our climate crisis continuing to grow, I'm thankful to be here at Columbia where our leadership has articulated a clear vision for prioritizing academic excellence on climate and embedding climate action and sustainability excellence into every aspect of our work across the entire University.

This Progress Report outlines actions taken across the six commitment areas of Plan 2030 to make Columbia more sustainable every day. We are working together to use less and cleaner energy in our buildings and vehicles; managing resources and waste more sustainably; serving delicious plant-based meals in the dining halls; exploring design and construction methods that move away from fossil fuel combustion. Much more is needed, and over the next year, you will continue to see additional progress in these critical areas of campus sustainability.

We must think even more broadly about the tools at the University's disposal to pursue climate action and sustainability excellence. Already, the University has established a non-investment policy in gas and oil companies that lack credible net zero plans and actions. We broke ground on a new all-electric biomedical research building. And a new committee has launched to review the research funding that comes from the fossil fuel industry. Every corner of our University has tools at its disposal to be a part of the solution.

Going forward, new initiatives will help us broaden our approach and impact. In particular, we seek to further leverage our own campus as a living laboratory for climate action by creating more opportunities for students and faculty to bring the full measure of their sustainability passion and creativity into their education. Please submit your proposed ideas to our team at environment@columbia.edu.



Columbia has all the tools in place to be the world's premier climate and sustainability University. Now, we must marshal the resources and expertise from every corner of this great institution to continue this work. Furthermore, we must be a good partner for our surrounding neighborhoods and community organizations who are counting on Columbia to lead.

Together with the Climate School, I look forward to working with the entire University community to embed climate action and sustainability excellence into every aspect of our work.

Daniel Zarrilli Chief Climate & Sustainability Officer Columbia University

PLAN 2030 PROGRESS

Updates from the Office of Sustainability

Spring 2025 marks the fourth year in Columbia's ten-year sustainability plan, Plan 2030. We are proud to share with you this year's progress report which covers activity since our last report was released. Each impact section in the report highlights accomplishments from across our campuses, relevant news articles, and a detailed table summarizing progress. As of calendar year 2023, the University has achieved a 10% reduction in emissions from its 2019 baseline year. As work has progressed, we have separated implementation of Plan 2030 into two pathways: Building Net Zero and Living Net Zero. Both are essential to reaching the University's commitments.

Building Net Zero is the action underway to reduce emissions through energy systems, construction, and transportation. Of the many projects being conducted, significant work in this area includes the first all-electric biomedical lab at Columbia University Irving Medical Center, two all-electric residences in Morningside

Heights, and the Comer Building electrification at Lamont-Doherty Earth Observatory. Electrification projects play a critical role in advancing our emissions reduction goals.

Living Net Zero encapsulates the actions that Columbia's schools, departments, and individuals can take to reduce environmental impact. Of note in this area is the enormous potential to ignite our campus as a living lab. Students continue to play a significant role in generating new solutions to advance progress at the University.

This past year, Columbia Dining made history as the inaugural signatory to the NYC Plant-Powered Challenge. Columbia students are to thank for conducting the early research and analysis that convinced them it could be done. A student capstone group within the Undergraduate Sustainable Development program worked alongside the Columbia Dining team to identify the opportunity, assess the change needed, and chart the course to success, leading Columbia to commit to a 25% reduction in food purchase-based emissions by 2030. Following the capstone, a graduate student intern was hired to create an analytics tool designed to track procurement and calculate related emissions reductions. This process is near complete and the tools developed will serve as a model for other applications as we reduce Scope 3 emissions.



Latest Highlights

10% reduction in overall emissions since 2019

Irving Medical Center breaks ground on NYC's first all-electric lab building

Campus as Lab efforts led to Columbia signing onto the Plant-Powered Challenge

Design and Construction Standards are under review, to be released this year

18% reduction in emissions from University owned fleet vehicles

This progress report demonstrates the complicated and wide-reaching work underway as we strive to Build and Live Net Zero. It also celebrates the smaller, but equally notable steps made throughout the year. In these ways and so many more, members of the Columbia community are driving change. We look forward to partnering together again with all of you as we break new ground on these efforts.

Jessica Prata Cianciara Assistant Vice President, Office of Sustainability Columbia University

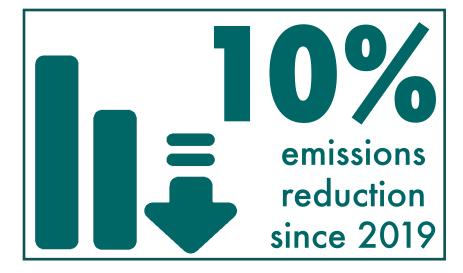
AT A GLANCE

Columbia is credited with

100 / zero

100 / emission

electricity through the
purchase of carbon offsets



Columbia revamps menus to reduce food-based emissions

250 by 2030

reduction in emissions from University owned fleet vehicles

5.5%
graduate & faculty housing stoves converted to electric

235,000 sqft.

of all-electric buildings under construction over the past year



AT A GLANCE

Centralized access to data from

~6,300

meters in the residential and academic portfolios

250,000 sqft.

of LED

upgrades
took place
in academic
buildings

faculty and graduate students have access to NYC's residential organics program





Sourced
110/6
of electricity
from solar- &
hydro-power



CLIMATE TARGETS: GREENHOUSE GAS EMISSION PATHWAYS: OVERVIEW

Setting and meeting climate and sustainability targets is critical to Columbia's role as a climate leader. In 2019, Columbia made a commitment to reach net zero emissions by 2050, consistent with global goals to avoid the most catastrophic scenarios of climate change.

Over the past three years, Columbia has been working at every level to develop and implement the best path forward to meet this greenhouse gas emission reduction target, which will primarily require decarbonizing and electrifying the University's buildings and vehicles.

As of Calendar Year 2023, the University has reduced its Scope 1 and Scope 2 emissions by 10% from its 2019 baseline. This includes emissions associated with onsite combustion, purchased electricity, fugitive emissions, and Columbia-owned fleet, consistent with the International Greenhouse Gas Protocol (see below for additional explanation).

Every Columbia University campus has a completed greenhouse gas inventory for Calendar Year 2023. The Morningside, Manhattanville, Nevis, Baker Athletic Complex, and Lamont-Doherty Earth Observatory campus inventories have each undergone an additional third-party verification in alignment with the standards set forth by The Climate Registry. Over the course of the next year, the Columbia University Irving Medical Center inventory will be included in that verification, contributing to a complete and verified Columbia University campus inventory starting in Calendar Year 2024, which will be available later this year.



CLIMATE TARGETS: GREENHOUSE GAS EMISSION PATHWAYS

Columbia's Greenhouse Gas Inventory Tracks University Emissions and the Process is Verified Annually by The Climate Registry

Every year, Columbia takes inventory of the greenhouse gas emissions directly and indirectly caused by University operations. The process involves identification of emissions sources, quantification of greenhouse gas volumes, and public reporting. All of Columbia's campuses – Morningside, Manhattanville, Lamont-Doherty Earth Observatory, Nevis, Baker Athletics Complex, and Columbia University Irving Medical Center – are part of this comprehensive effort.

Columbia's greenhouse gas inventory form and process follow the industry standard International Greenhouse Gas Protocol, reporting all Scope 1 and Scope 2 emissions and a growing set of Scope 3 emissions. However, no Scope 3 emissions are currently included in the University's targets. On an ongoing basis, Columbia enhances its inventory accuracy and reporting quality by upgrading energy data management practices, refining reporting boundaries, and applying industry best practices.

SCOPE 1

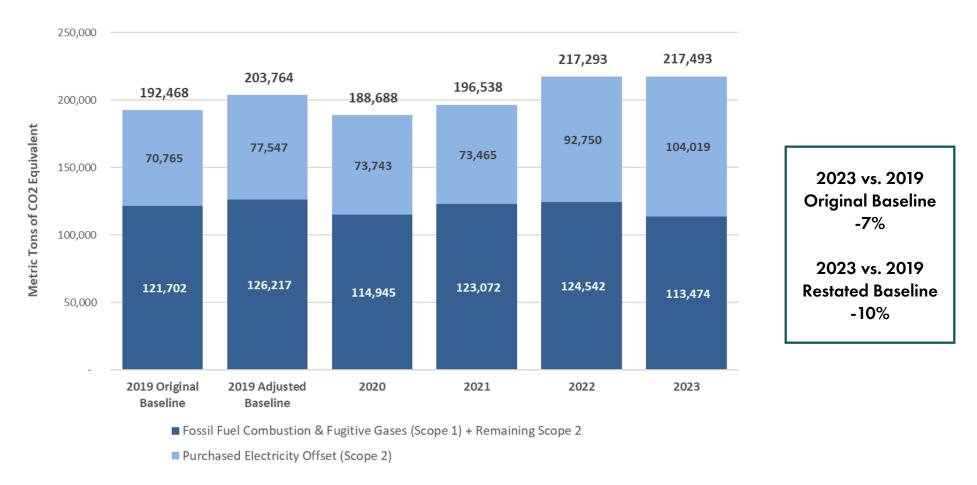
Emissions directly caused by combustion of fossil fuels in stationary plant equipment, fuels for fleet vehicles, and fugitive emissions from refrigerants, medical, and research gasses. Nearly all Scope 1 emissions (97% in 2023) are from stationary combustion.

SCOPE 2

Indirect emissions associated with purchased utilities like electricity, heating and cooling. In keeping with its commitment to 100% renewable electricity, each year since 2018 Columbia has offset all electricity emissions with an equivalent quantity of carbon instruments, such as Carbon Credits and Renewable Energy Credits. Other Scope 2 emissions come from purchased heating and cooling.

SCOPE 3

Indirect emissions associated with Columbia's supplier value chain for items such as travel, food, capital goods, and others.



Columbia has reduced greenhouse gas emissions 10% since 2019 in the midst of expanding campus and grid transition.

The above graphic illustrates All of Columbia University Scope 1 and Scope 2 emissions from 2019 to 2023. Since submitting the Calendar Year 2023 inventory to The Climate Registry, the University has continued to improve the inventory accuracy and reporting quality. The numbers reflected here are adjusted as of this report's release. As the largest contributor of Scope 1 emissions, stationary combustion for heating is highly dependent on weather and the fuel type used. Along with a milder winter in 2023 compared to 2019, Columbia burned far less fuel oil. Weather and fuel drove a similar comparative difference between 2022 and 2023.

With respect to emissions from Scope 2 Purchased Electricity, the staged closure of the Indian Point nuclear facility increased grid carbon intensity. That increase translated to an increase in electricity-related emissions for Columbia that required larger commitments to Carbon Credits or Renewable Energy Credits, even though Columbia's annual electricity use in terms of megawatt hours since 2019 is relatively unchanged.

All campuses contribute to the Scope 1 and 2 emissions of the University.

Columbia has reduced greenhouse gas emissions 10% since 2019 in the midst of expanding campus and grid transition. The following tables show University-wide greenhouse gas accounting, including Scope 1 and Scope 2 emissions for each of Columbia's campuses.

| | | 2019 | 2019 | | | | |
|------|--|----------|----------|----------|----------|----------|-----------|
| | Tatal Casus 4 C Casus 2 Fusiasians | Original | Adjusted | 2020 | 2021 | 2022 | 2023 |
| ⊴ ≿ | Total Scope 1 & Scope 2 Emissions | Baseline | Baseline | | | | |
| UMBI | | 192,468 | 203,764 | 188,688 | 196,538 | 217,293 | 217,493 |
| | Total Scope 1 | 94,958 | 95,828 | 86,154 | 90,760 | 93,127 | 84,549 |
| 8 5 | Total Scope 2 | 97,510 | 107,936 | 102,534 | 105,777 | 124,166 | 132,944 |
| | Mitigated Emissions (S2 Purchased Electricity) | (70,765) | (77,547) | (73,743) | (73,465) | (92,750) | (104,019) |
| | Remaining Emissions | 121,702 | 126,217 | 114,945 | 123,072 | 124,542 | 113,474 |

| % Change | % Change |
|--------------|--------------|
| 2023 vs 2019 | 2023 vs 2019 |
| Original | Adjusted |
| Baseline | Baseline |
| -7% | -10% |

| Emissio | ons by Campus | | | | | | |
|-------------|--|---------|---------|--------|---------|---------|---------|
| | Total Scope 1 & Scope 2 Emissions | 110,524 | 117,344 | 98,426 | 106,074 | 120,769 | 117,782 |
| w | Scope 1 | 75,415 | 75,458 | 63,982 | 69,314 | 69,306 | 63,224 |
| MORNINGSIDE | Stationary Combustion of Fuel | 72,314 | 73,976 | 62,345 | 66,618 | 67,052 | 61,417 |
| 💆 | Mobile Combustion of Fuel | 817 | 669 | 824 | 1,883 | 1,441 | 1,185 |
| N Z | Fugitive Refrigerants & Medical/Research Gases | 2,283 | 813 | 813 | 813 | 813 | 623 |
| 8 | Scope 2 | 35,110 | 41,886 | 34,444 | 36,760 | 51,463 | 54,558 |
| - | Purchased Electricity | 35,110 | 41,096 | 33,654 | 36,092 | 50,796 | 53,856 |
| | Purchased Heating & Cooling | - | 790 | 790 | 667 | 667 | 702 |
| | Total Scope 1 & Scope 2 Emissions | 63,473 | 63,475 | 67,430 | 66,841 | 68,205 | 69,342 |
| | Scope 1 | 11,249 | 11,251 | 11,731 | 11,009 | 11,747 | 10,988 |
| U | Stationary Combustion of Fuel | 11,020 | 11,020 | 11,495 | 10,781 | 11,515 | 10,760 |
| CUIMC | Mobile Combustion of Fuel | 24 | 24 | 29 | 21 | 25 | 20 |
| 2 | Fugitive Refrigerants & Medical/Research Gases | 205 | 207 | 207 | 207 | 207 | 207 |
| | Scope 2 | 52,224 | 52,224 | 55,699 | 55,832 | 56,458 | 58,355 |
| | Purchased Electricity | 25,479 | 25,479 | 25,744 | 24,187 | 27,970 | 30,131 |
| | Purchased Heating & Cooling | 26,744 | 26,744 | 29,954 | 31,645 | 28,488 | 28,224 |

| | | 2019 | 2019 | | | | |
|-------|--|----------|----------|----------|----------|----------|-----------|
| | Total Scope 1 & Scope 2 Emissions | Original | Adjusted | 2020 | 2021 | 2022 | 2023 |
| ⊴ ≿ | | Baseline | Baseline | | | | |
| UMBIA | | 192,468 | 203,764 | 188,688 | 196,538 | 217,293 | 217,493 |
| | Total Scope 1 | 94,958 | 95,828 | 86,154 | 90,760 | 93,127 | 84,549 |
| | Total Scope 2 | 97,510 | 107,936 | 102,534 | 105,777 | 124,166 | 132,944 |
| | Mitigated Emissions (S2 Purchased Electricity) | (70,765) | (77,547) | (73,743) | (73,465) | (92,750) | (104,019) |
| | Remaining Emissions | 121,702 | 126,217 | 114,945 | 123,072 | 124,542 | 113,474 |

| % Change | % Change |
|--------------|--------------|
| 2023 vs 2019 | 2023 vs 2019 |
| Original | Adjusted |
| Baseline | Baseline |
| -7% | -10% |

| Emissio | ns by Campus | | | | | | |
|----------------|--|--------|--------|--------|--------|--------|--------|
| | Total Scope 1 & Scope 2 Emissions | 14,684 | 16,240 | 16,307 | 16,747 | 22,181 | 22,676 |
| MANHATTANVILLE | Scope 1 | 5,801 | 6,071 | 7,028 | 6,897 | 9,185 | 7,374 |
| \(\) | Stationary Combustion of Fuel | 5,745 | 6,017 | 6,975 | 6,840 | 9,142 | 7,372 |
| ₹ | Mobile Combustion of Fuel | 46 | 44 | 42 | 46 | 32 | - |
| ≰ | Fugitive Refrigerants & Medical/Research Gases | 10 | 11 | 11 | 11 | 11 | 2 |
| | Scope 2 | 8,883 | 10,168 | 9,279 | 9,851 | 12,996 | 15,302 |
| Į | Purchased Electricity | 8,883 | 10,168 | 9,279 | 9,851 | 12,996 | 15,302 |
| | Purchased Heating & Cooling | - | - | - | - | - | - |
| | Total Scope 1 & Scope 2 Emissions | - | 3,829 | 3,488 | 3,600 | 3,940 | 4,750 |
| | Scope 1 | | 1,414 | 1,474 | 1,380 | 1,498 | 1,757 |
| | Stationary Combustion of Fuel | - | 1,238 | 1,188 | 1,188 | 1,312 | 1,553 |
| LDEO | Mobile Combustion of Fuel | - | - | 109 | 16 | 16 | 33 |
| | Fugitive Refrigerants & Medical/Research Gases | - | 177 | 177 | 177 | 170 | 170 |
| | Scope 2 | | 2,415 | 2,014 | 2,219 | 2,443 | 2,993 |
| | Purchased Electricity | - | 2,415 | 2,014 | 2,219 | 2,443 | 2,993 |
| | Purchased Heating & Cooling | - | - | - | - | - | - |

| | Total Scope 1 & Scope 2 Emissions | 2019 | 2019 | | | | |
|-------|--|----------|----------|----------|----------|----------|-----------|
| | | Original | Adjusted | 2020 | 2021 | 2022 | 2023 |
| ⊴ ≱ | | Baseline | Baseline | | | | |
| IMBIA | | 192,468 | 203,764 | 188,688 | 196,538 | 217,293 | 217,493 |
| l ⊒ ≥ | Total Scope 1 | 94,958 | 95,828 | 86,154 | 90,760 | 93,127 | 84,549 |
| 8 5 | Total Scope 2 | 97,510 | 107,936 | 102,534 | 105,777 | 124,166 | 132,944 |
| | Mitigated Emissions (S2 Purchased Electricity) | (70,765) | (77,547) | (73,743) | (73,465) | (92,750) | (104,019) |
| | Remaining Emissions | 121,702 | 126,217 | 114,945 | 123,072 | 124,542 | 113,474 |

| % Change | % Change |
|--------------|--------------|
| 2023 vs 2019 | 2023 vs 2019 |
| Original | Adjusted |
| Baseline | Baseline |
| - 7 % | -10% |

| Emissions by Campus | | | | | | | |
|---------------------|--|-------|-------|-------|-------|-------|-------|
| | Total Scope 1 & Scope 2 Emissions | 2,316 | 2,092 | 2,172 | 2,429 | 1,367 | 2,037 |
| | Scope 1 | 1,444 | 1,165 | 1,396 | 1,678 | 932 | 808 |
| | Stationary Combustion of Fuel | 1,110 | 1,150 | 1,265 | 1,664 | 918 | 793 |
| BAKER | Mobile Combustion of Fuel | 334 | - | 117 | - | - | - |
| BA | Fugitive Refrigerants & Medical/Research Gases | - | 14 | 14 | 14 | 14 | 14 |
| _ | Scope 2 | 872 | 927 | 776 | 750 | 435 | 1,229 |
| | Purchased Electricity | 872 | 927 | 776 | 750 | 435 | 1,229 |
| | Purchased Heating & Cooling | - | - | - | - | - | - |
| | Total Scope 1 & Scope 2 Emissions | 1,470 | 784 | 864 | 848 | 830 | 904 |
| | Scope 1 | 1,049 | 469 | 542 | 482 | 459 | 398 |
| | Stationary Combustion of Fuel | 963 | 468 | 509 | 481 | 458 | 396 |
| NEVIS | Mobile Combustion of Fuel | 86 | - | 32 | - | - | - |
| Z | Fugitive Refrigerants & Medical/Research Gases | - | 1 | 1 | 1 | 1 | 2 |
| | Scope 2 | 421 | 315 | 322 | 366 | 371 | 507 |
| | Purchased Electricity | 421 | 315 | 322 | 366 | 371 | 507 |
| | Purchased Heating & Cooling | - | - | - | - | - | - |

CLIMATE TARGETS: GREENHOUSE GAS EMISSION PATHWAYS: PROGRESS

GOAL: Achieve net zero emissions by 2050 or sooner.

PLAN 2030 STRATEGIES

Reduce emissions according to science-based targets. 2025 emissions reduction target: 15% below 2019 baseline. 2030 emissions reduction target: 42% below 2019 baseline. 2035 emissions reduction target: 63% below 2019 baseline.

Seek to adapt The Climate Registry accounting process and tools to easily extract NYC reporting information/metrics.

Migrate to one set of accounting books as Local Law 97 emissions limits become relevant over time.

Complete an inventory of all key Scope 3 sources by the end of 2022, and establish science-based targets for Scope 3 that are consistent with the principles applied to Scope 1 and Scope 2.

PROGRESS SINCE APRIL 2023

Columbia has reduced emissions by 10% since 2019. To help improve the ability to monitor progress against its goals, Columbia has partnered with a firm to create an online platform that will centralize utility meter tracking. The firm will work with the University to create a more real-time view of greenhouse gas emissions performance across all campuses.

The University has developed tools to ensure accurate and complete reporting to both The Climate Registry and the NYC Mayoral Carbon Challenge. Once Local Law 97 reporting has been clarified by the NYC Department of Buildings, the University will comply with it as well.

The University will assess the best way to achieve the migration of data once the Local Law 97 process has been clarified by the NYC Department of Buildings.

In 2022, the University completed a Scope 3 screening level analysis using 2019 data and a spend-based method. In 2024, a series of Think Tank workshops brought administrative staff together to identify key opportunities and challenges for areas including business travel, waste, and purchased goods and services. This was the first step in advancing Living Net Zero, the implementation plan for three sections of Plan 2030, and will continue toward setting targets for Scope 3 emissions.

CAMPUS ENERGY: OVERVIEW

The University's buildings and vehicles are the primary contributor to our Scope 1 and Scope 2 greenhouse gas emissions. Decarbonizing these requires a thorough plan that is both cost-effective and achievable. As we have learned, electrification of building systems and energy conservation measures are key to achieving our net zero ambitions, and are also a cornerstone strategy to improve air quality creating healthy neighborhoods in NYC and beyond.

Over the past three years, Columbia has made progress developing a series of strategies that ensure forward action in these areas. At the Morningside, Manhattanville, and Irving Medical Center campuses, strategic electrification studies have been undertaken to evaluate the technologies, trade offs, and costs of multiple decarbonization pathways. The University has completed \$2.5 million in energy conservation measures, including LED lighting retrofits. Over the past year, 235,000 square feet of all-electric buildings came under construction between the Irving Medical Center and Morningside campuses. The Lamont-Doherty Earth Observatory campus has completed an engineering study for and is now actively pursuing the electrification of the Comer Building, its most energy-intensive lab building.

Each campus plan features near-term work while also building in flexibility to anticipate and take advantage of new technology as it emerges over time. Critical to the success of the decarbonization work is that all campuses work together in an all-University coordinated approach so that Columbia achieves its overarching science-based targets.



CAMPUS ENERGY: NEWS





Facilities Operations Ensures Maximum Efficiency through Continuous **Energy Conservation Measures**

As Columbia works to achieve its goal of net zero greenhouse gas emissions by 2050 or sooner, a number of energy conservation measures are being completed across Columbia's campuses at any given time.

Read more >

Science-Based Targets and Columbia's Trajectory

Columbia's greenhouse gas reduction goals stated in Plan 2030 are aligned with the Science Based Targets Initiative.

Read more >

Columbia Explores Geothermal at Manhattanville

Ground-source heat exchange systems access the earth's constant temperature at depths reaching 1,000 feet.

Read more >

Progress on Electrification and Energy Initiatives

Electrification, retro-commissioning, LED lighting, data collection, and more all contribute to Columbia's road to net zero emissions.

Read more >

Plan 2030 and Carving a Pathway to Electrification

As part of Climate Week 2023, the Office of Sustainability hosted a virtual panel about Plan 2030 and the University's pathway to campus electrification.

Read more >

Heat Pumps for Efficient Heating and Cooling

Heat pumps work by transferring heat from inside a space to the outside, like a refrigerator.

Read more >

Medical Center Invests in LED Lighting Upgrades

The project helped avoid 352 metric tons of carbon emissions.

Read more >

Manhattanville's District Energy Systems Team **Uses Data-Driven Measures to Reduce Footprint**

The team works to reduce emissions in the short-term while upgrading the Central Energy Plant to meet rigorous new standards.

Read more >

Read more campus energy news on our website.

CAMPUS ENERGY: PROGRESS

GOAL: Columbia commits to electrification and 100% renewable electricity.

PLAN 2030 STRATEGIES

In the near- to mid-term, aggressively identify and implement opportunities to avoid and reduce emissions through traditional energy efficiency measures. This includes new building and retro-commissioning standards, space use optimization, and both electricity-and fuel-related improvements in efficiency.

Transition as rapidly as is practical from brown power paired with national renewable energy credits to zero-emission electricity sources on the New York grid that, where feasible, are Local Law 97-eligible or (ideally) are located on Columbia campuses.

PROGRESS SINCE APRIL 2023

The University has achieved progress against a series of long-term efforts over the past year including: 250,000 square feet of LED upgrades in compliance with Local Law 88, retrocommissioning audits and implementation, and elevator upgrades. Notably, Irving Medical Center broke ground on the first all-electric lab building in NYC. On the Morningside campus, two all-electric buildings (611 W. 112th Street and 518 W. 116th Street) are under construction that will further remove the University's need for fossil fuel-based mechanical infrastructure.

The University continued its commitment to zero-emission electricity using a market-based approach. This past year, Columbia purchased carbon credits to offset these emissions. Columbia continues to monitor the availability of Local Law 97 compliant renewable energy credits but as of now, none are available.

CAMPUS ENERGY: PROGRESS

GOAL: Columbia commits to electrification and 100% renewable electricity.

PLAN 2030 STRATEGIES

In the mid- to long-term, pair deep conservation with electrification to replace fossil fuels used for heating and cooling. As a first step, Columbia will undertake comprehensive engineering studies to determine the best strategic path for the electrification of its campuses.

PROGRESS SINCE APRIL 2023

A series of studies were completed to evaluate paths to electrify Columbia's campus district energy systems, as well as academic and residential buildings, at the Morningside and Manhattanville campuses. The University will undertake a supplemental review to confirm the pathways that are the least disruptive, reduce greenhouse gas emissions most quickly, are the most cost-effective, and reliably serve the University's heating and cooling needs.

At the Medical Center, a comprehensive study was conducted that revealed a series of project opportunities. In the coming year, the pathways at this campus will also be evaluated to determine timing for execution.

At the Lamont-Doherty Earth Observatory, work is underway to electrify the Comer Building, the campus's most energy intensive lab building.

SUSTAINABLE TRANSPORTATION: OVERVIEW

A forward thinking transportation plan is not only critical to reduce the University's direct and indirect emissions, it is another cornerstone strategy to improve air quality creating healthy neighborhoods in NYC and beyond.

In 2021, Columbia committed to a series of strategies to reduce emissions associated with vehicle fleets, commuting, business travel, and freight. Over the past three years, Columbia has enhanced programs that encourage walking, cycling, use of its shuttle network and public transit, such as by expanding parking capacity allocated for the Lamont Park and Ride and additional bike parking spaces. This has happened at the same time that commuting patterns have dramatically changed (See graphic.)

In the United States, the transportation sector is responsible for about 28% of total emissions, and while Columbia's transportation footprint is kept relatively small given our compact urban setting, our efforts are important and contribute to an overall decrease.

In the past year, Columbia has continued transitioning its fleet to hybrid and electric vehicles and has reduced emissions from its fleet by 18% since our baseline year. Additionally, Columbia has been actively planning for electric vehicle charging infrastructure, collaborated with campus partners to reduce emissions from business travel, and repositioned its strategies surrounding freight emissions.



SUSTAINABLE TRANSPORTATION: NEWS



Columbia University Joins List of Best Workplaces for Commuters

The honor was achieved through its robust range of environmentally friendly commute options that support sustainability initiatives and offer resources to benefit employees. Commuter benefits help reduce traffic congestion, greenhouse gas emissions, and help Columbia to attract and recruit top talent.

Read more >

Two-Day Trial Pass for Lamont Park and Ride

Full-time employees on the Morningside or Manhattanville campuses can now redeem a two-day trial pass to use the Lamont-Doherty Shuttle Park and Ride.

Read more >

New Resources for Discovering Your Best (and Most Sustainable) Commute

The Office of Sustainability offers resources to help Columbia affiliates discover their optimal commute.

Read more >

Lamont Park-and-Ride Program Adds Ten New Spaces

This recent increase brings the total to 51 parking spaces.

Read more >

Read more transportation news on our website.

Commute Travel by Columbia Affiliates has Increased to About Half of Pre-pandemic Levels

Commute travel has gradually returned year over year since the pandemic but is still down for all modes, with the total annual miles traveled for 2022 down 44% compared to 2019.

Read more >

Event Spotlight: Ride Your Bike to Campus Days

Meet other cyclists, get free bicycle registrations, bike tune-ups, and more.

Read more >

Lamont Purchases New Ford E-Transit EV

The vehicle went into service at the beginning of April and has replaced an aging gas powered van that is slated to be retired.

Five New Second-Generation Electric Vantage Vehicles Hit the Road

Facilities and Operations purchased five new second-generation electric Vantage Vehicle mini-trucks for its grounds operations.

Read more >

SUSTAINABLE TRANSPORTATION: PROGRESS

GOAL: Reduce emissions from on-campus fleet vehicles, commuters, and business travel.

PLAN 2030 STRATEGIES

Campus fleet: Zeroemission on-campus fleets by 2037 or sooner, aligning with NYC goals.

PROGRESS SINCE APRIL 2023

It is now required that all retired department vehicles be replaced only with hybrid or electric vehicles through 2027, and with only electric vehicles after 2027 pending market availability. Of Columbia's fleet of 104 vehicles, 23 are hybrid and 15 are fully electric (36%). Between January 2023 and October 2024, the University has purchased 6 new fully electric vehicles. While Columbia's fleet size has increased since our baseline year of 2019, the University has reduced emissions by 18%.

Contracted shuttles are electric on most routes, and planning is underway to fully electrify them. Discussions around how to address emissions from the Athletics and Arbor shuttles are ongoing. In summer 2023, Columbia Transportation partnered with a student capstone group to evaluate the intercampus routes for efficiency and communication improvements. The University continues to evaluate a number of the proposals.

Columbia plans to leverage fast charging technology to support the electric vehicle transition of its 24/7 operating fleet. Site evaluation took place to identify parking areas with enough power; the Engineering Terrace Garage has been identified as the most fitting location given it can serve commuters by day and fleet vehicles by night and on weekends.

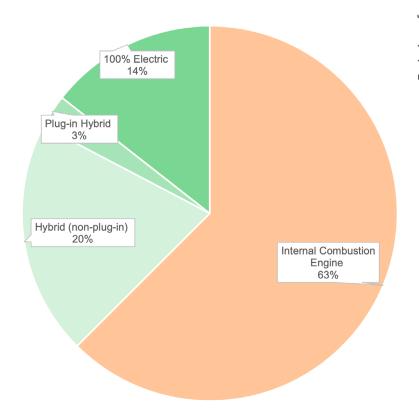
In 2024, Facilities and Operations — Columbia's largest fleet owners — consolidated fleet procurement and management under Columbia Transportation to improve efficiency. At the same time, Columbia Transportation adopted a fleet management software platform to obtain fleet telematics and more effectively monitor operations. The software will also assist in electric vehicle planning.

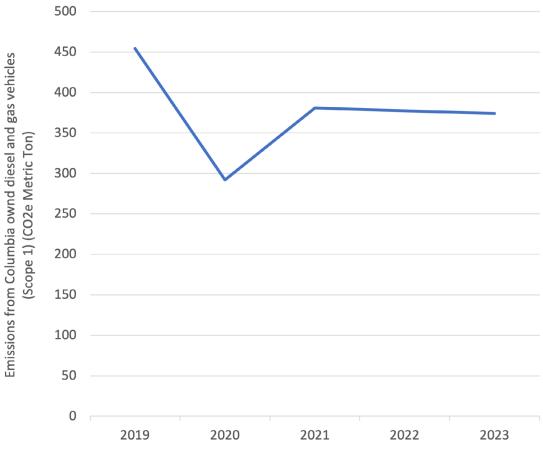
A student group called the Electric Vehicle Organization has partnered with Columbia Transportation and the Office of Sustainability to review Columbia's electric vehicle transition and charging plan. The group began work in September 2024, aligning with Columbia's mission to use campus as a living lab for student research.

20

Emissions from fleet vehicles that Columbia owns have reduced 18% since our baseline year (2019).

Through the gradual transition to more fuel efficient vehicles with improved miles per gallon ratios, hybrid and electric vehicles, Columbia has reduced emissions from its owned fleet by 18% since our baseline year.



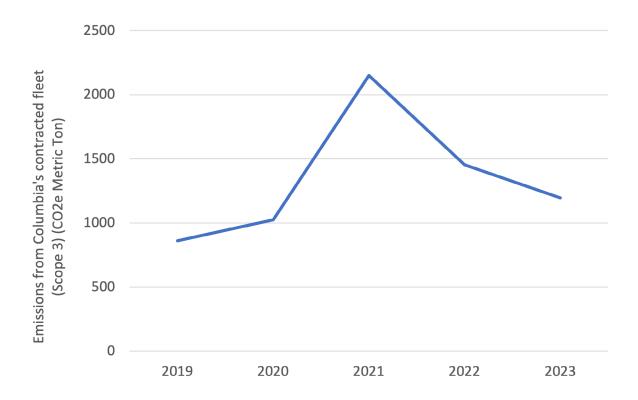


University fleet transition is underway with more than onethird either hybrid or electric vehicles.

As vehicles retire, we look to replace them with hybrid or electric, depending on market availability of vehicles that meet operational needs. This transition to hybrid and electric vehicles is key to our pathway to a zero-emission fleet.

Emissions from Columbia's contracted fleet have risen since our baseline year.

The increase is largely due to extended shuttle service hours which go beyond our electric shuttles' daily range, and a need for larger vehicles where there's a lack of market availability for electric options. The spike in 2020 and 2021 was a result of Columbia's COVID-19 pandemic relief shuttle buses.



SUSTAINABLE TRANSPORTATION: PROGRESS

GOAL: Reduce emissions from on-campus fleet vehicles, commuters, and business travel.

PLAN 2030 STRATEGIES

Commute: Reduce the percentage of Columbia affiliates choosing a drive-alone commute to below 8% employees and .5% students by 2030, and to zero by 2040.

PROGRESS SINCE APRIL 2023

Over time since 2020, Columbia's commute emissions have gradually increased. However, they are still well below pre-pandemic levels. The University continues to honor its Flexible Working Arrangement policy which helps reduce commute trips and demand during peak travel periods. Schools and departments are responsible for determining positions that can offer hybrid work arrangements. These arrangements also minimize commute emissions.

Partnering with a student under the Campus as Lab effort, Columbia completed a ten-year electric vehicle station expansion plan. As the industry evolves, Columbia will look to fast charging to better serve commuter needs.

Columbia maintains a comprehensive free shuttle network designed to support intercampus commute travel to key transit hubs, as well as areas lacking transit like Bergen and Rockland counties. The shuttle service recoded over 460,000 trips in 2023. Extra service was added in 2023 to Columbia's George Washington Bridge/Fort Lee shuttle route that connects Columbia to Fort Lee, supporting Columbia affiliates commuting from more car-centric locations.

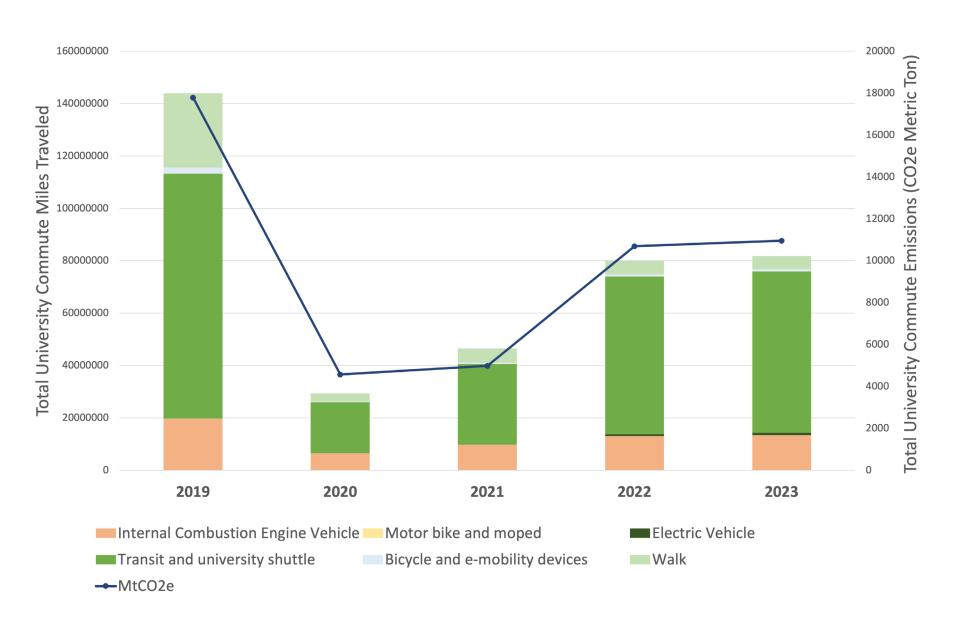
Columbia continues to operate a Park and Ride service at Lamont-Doherty Earth Observatory in Rockland County. In 2024, Columbia launched a free two-day trial pass for employees to try the Park and Ride service to incentivize participation.

Columbia's Transportation website hosts comprehensive commute information including carpool matching, carpool incentives, bicycle parking information, and the the ability to sign up for Columbia's bicycle interest group newsletter.

While parking policies and pricing are yet to be evaluated against Columbia's sustainability objectives at Morningside and the Medical Center, Manhattanville parking rates have been adjusted to market rate. Only a daily rate is offered, following transportation demand management industry best practices.

Columbia commute survey data is used to calculate total annual miles by commute mode choice, and ultimately emissions.

The data shows that travel and emissions have reduced as a result of the COVID-19 pandemic and the subsequent adoption of hybrid work schedules.



SUSTAINABLE TRANSPORTATION: PROGRESS

GOAL: Reduce emissions from on-campus fleet vehicles, commuters, and business travel.

PLAN 2030 STRATEGIES

Business Travel: Provide campus resources that allow affiliates to avoid travel if possible; offset emissions from University-sponsored business travel.

PROGRESS SINCE APRIL 2023

Business travel is crucial to the mission of the University. While the COVID-19 pandemic saw the adoption of video conferencing as a replacement for travel and in-person meetings, travel since 2021 has been on the rise.

Columbia has been tracking and reporting business travel emissions in the form of air travel emissions. At the launch of Plan 2030, our methodology for reporting emissions was through a survey. However, in 2020, Columbia moved to reporting emissions via data collected through our travel reservation system; although not comprehensive of all travel, it is viewed as more accurate.

In Spring 2024, the Office of Sustainability hosted Think Tank workshops with representatives from schools and departments across Columbia's campuses. One focus area of the Think Tanks was business travel, in which participants aimed to identify barriers and opportunities to decrease emissions, particularly around flying. Air travel emissions are by far the University's largest portion of business travel emissions, and there are currently no carbon-free flying options. Columbia encourages affiliates to choose train travel over flying for local trips to popular destinations like Boston, but more technological advancement is required in this area.

Columbia has partnered with Concur and World Travel to provide affiliates with a travel booking tool that raises awareness about emissions and offers sustainability incentives. The University has an arrangement with Amtrak and partners with forward-thinking airlines who are leaders in sustainable aviation fuel. More research, discussions, and analysis will be necessary to make strides on this topic.

SUSTAINABLE TRANSPORTATION: PROGRESS

GOAL: Reduce emissions from on-campus fleet vehicles, commuters, and business travel.

PLAN 2030 STRATEGIES

Freight: Reduce impacts of freight deliveries such as traffic and parking congestion, particularly during peak road demand periods. Reduce negative impacts of double parking by delivery vehicles. Begin 2025 or sooner.

PROGRESS SINCE APRIL 2023

Freight travel to the University has impacts in multiple areas. Not only are emissions heavier from diesel trucks, but it adds to traffic congestion in New York City and near our campuses. We will further our gathered knowledge from previous student capstone research and again look to leverage these Campus as Lab channels, as well as New York City initiatives to develop smart ways to reduce freight travel impacts and reporting methods.

RESPONSIBLE DESIGN AND CONSTRUCTION: OVERVIEW

As a leading New York City institution, Columbia continues to expand, renew, and refresh its infrastructure and buildings. It is critical to ensure that its design and construction practices support the rigorous climate and sustainability goals set forth in Plan 2030 through a clear set of standards that applies to projects large and small.

In 2021, the University committed to the development of such standards that would apply to all project sizes and types across the University.

This past year, all campuses participated in a process to create new sustainable design and construction standards covering the impact areas of energy, water, waste, healthy materials, and more. Over the course of the coming year, the University is poised to reveal and implement these standards across all campuses. The process to fully embed the standards into practice will take approximately one year and will be a critical step to ensure that every design- and construction-related decision ensures full support of the University's climate and sustainability goals.



RESPONSIBLE DESIGN AND CONSTRUCTION: NEWS



Rendering by Kohn Pedersen Fox (KPF)

New York City's First All-Electric Biomedical Research Building Combines State-of-the-Art Medical Research with a Vision for a More Sustainable Future for Science

An all-electric building, the new Vagelos Innovation Laboratories at Columbia University Irving Medical Center is the first purpose-built, all-electric academic research lab building in New York City. It is designed to meet New York City's Local Law 97 requirements and support Columbia University's Plan 2030 greenhouse gas reduction goals.

Read more >

Renovation Underway on Columbia's First All-Electric Undergraduate Residence Hall

Columbia University's residential building at 611 West 112th Street is a seven-story structure covering 44,533 square feet that will stand as a beacon of sustainability and modern efficiency.

Read more >

Columbia Completes First Two Phases of Sustainable Design and Construction Standards Enhancement Project

Columbia and consulting firm WSP will assess, update, and create policies to deliver a new sustainability standard that ensures all building design and construction decisions are aligned with Plan 2030's science-based targets and Local Law 97.

Read more >

Renovation Underway on All-Electric Apartment Building on 111th Street

Columbia University's apartment building for graduate students and faculty at 518 W. 111th Street is a six-story structure covering 43,000 square feet whose sustainable design and construction standards will pave the way for future renovations.

Read more >

Read more design and construction news on our website.

RESPONSIBLE DESIGN AND CONSTRUCTION: PROGRESS

GOAL:

Ensure the design, construction, and refresh processes at all campuses support the University's long-term goal to both decarbonize and achieve zero waste.

PLAN 2030 STRATEGIES

Create and adopt a Columbia policy that sets clear sustainability requirements for all elements of design and construction, pushes Columbia beyond guidelines and code, addresses perceived restraints, and ensures alignment with the University's emissions reduction goals.

Develop action plans that provide tactical guidelines to make sustainability a part of Columbia's design and construction culture.

PROGRESS SINCE APRIL 2023

Central to aligning University design and construction efforts with Plan 2030 is the development of a set of standards that pushes Columbia beyond guidelines and maintains its role as a climate leader in this area. A consulting firm was hired to help develop these University-wide Sustainable Design and Construction standards and over the past year, with many stakeholders engaged, the firm helped draft these requirements. The standards are under internal review and will be released in the coming year with sections on energy, water, materials management, and more. The next steps include developing an implementation plan and training.

Action plans for the rollout of this program will stem from the above effort.

RESPONSIBLE MATERIALS MANAGEMENT: OVERVIEW

Rethinking procurement of goods, management of waste, purchase of new materials and disposal of the old — often referred to as circularity — are important to ensure our daily behaviors and practices support the University's sustainability goals. Materials management is a complicated web, and Columbia is committed to finding new efficiencies to manage the flow of goods through its campuses.

In 2021, Columbia committed to expand waste diversion opportunities, encourage zero waste events, work with tenants on campus to align with University sustainability practices, and pursue more aggressive procurement practices that reduce Scope 3 emissions.

This past year, the University took a big step forward establishing a new paradigm for food procurement through its participation in the Mayor's Plant-Powered Challenge. These practices will gradually scale up to all Columbia Dining operations. Pivotal to the effort are menu changes to include more plant powered ingredients such as legumes, and the development of a sophisticated analytics tool to baseline and track monthly the impact that these changes make on our emissions. Tremendous progress has been made on both fronts and presents a model to follow as the University digs deeper into other Scope 3 related emissions that require intense data analysis to centralize and understand fully.

In the coming year, the University will expand efforts around sustainable food procurement, further engage with tenants across Columbia's real estate locations on the topics of waste, water and energy. As New York City's Department of Sanitation re-launches its organics program in District 9, Columbia's residential portfolio will ensure compliance with this law. Further, the University will pursue strategic partnerships to pilot new ways to improve waste diversion through new technology that improves access to data on a local level.



RESPONSIBLE MATERIALS MANAGEMENT: NEWS



Columbia University Commits to Reducing Food-Related Carbon Emissions by 25 Percent by 2030

The Plant-Powered Carbon Challenge calls on New York City's private sector to reduce food-related carbon emissions 25 percent by 2030.

Read more >

Columbia University Commits to New York City Plant-Powered Carbon Challenge

Columbia Dining is the first signatory to the Plant-Powered Carbon Challenge, a NYC-wide initiative to reduce carbon emissions through plant-forward food.

Read more >

Mayor's Office Releases Video on Columbia's Participation in the Plant-Powered Challenge

In partnership with nonprofit Greener by Default, challenge participants are offered science and behavioral research to inform strategies and tools to track emissions through food procurement.

Read more >

CUIMC Waste Management Audit Quantifies and Reduces Waste Generated Across Portfolio

Columbia has committed to matching NYC's zero waste goal by 2030, which will require all campuses to accurately quantify waste streams.

Read more >

Columbia Donates Used Furniture to Vulnerable Populations in New York City

Columbia departments teamed up to find a new home for the used residence hall furniture to be replaced.

<u>Read more ></u>

Event Spotlight: Clean + Go Green

Clean + Go Green is a University-wide effort that encompasses everything from donating clothes, to recycling electronics, to shredding documents.

Read more >

Office of Sustainability Team Joins Colleagues Across Campus in the 'Great Broadway Sweep'

The event rallied students, faculty, staff, Morningside Heights and West Harlem community partners, and neighbors to collect trash along NYC's most iconic street.

Read more >

Read more materials management news on our website.

RESPONSIBLE MATERIALS MANAGEMENT: PROGRESS

Columbia commits to align with New York City's zero waste goal through GOAL: enhanced waste diversion programming, strategic procurement partnerships, and a robust sustainable events policy.

PLAN 2030 STRATEGIES

Expand current waste diversion programs including organics, evolve Scope 3 emissions baseline data and tracking, create a steering committee to evaluate measurement of waste minimization.

Host only zero waste events.

PROGRESS SINCE APRIL 2023

After a significant pause, NYC re-launched its Department of Sanitation (DSNY) curbside residential organics collection program. Separation of organic waste is required in faculty, graduate, and undergraduate portfolios to align with waste and recycling laws. A brand new administrative furniture re-use website was launched to improve circularity and reduce waste-to-landfill. Looking ahead, Columbia will evaluate and inventory placement of DSNY-sponsored textile and electronic collection stations in its residential and academic portfolios. To evaluate pathways to measure waste minimization, research into best-practice firms and new Al tools will be reviewed with the Waste Working Group, which brings together professionals across all campuses that manage Columbia's many waste streams. This group began meeting in 2024.

In 2021, Columbia published Sustainable Events Guidelines and since then teams have used this as an important tool to mitigate waste at their events. In looking ahead Columbia will seek to continue elevating awareness around sustainable event practices.

RESPONSIBLE MATERIALS MANAGEMENT: PROGRESS

Columbia commits to align with New York City's zero waste goal through GOAL: enhanced waste diversion programming, strategic procurement partnerships, and a robust sustainable events policy.

PLAN 2030 STRATEGIES

Align retail tenant operations with University sustainability standards.

Set procurement specifications to quantify emissions from procured goods and services.

PROGRESS SINCE APRIL 2023

Columbia has focused on strategically communicating with commercial tenants around sustainability. New language has been drafted for inclusion in upcoming new contracts regarding, among other things, alignment with waste-hauling practices as required by Department of Sanitation laws and awareness of implications of Local Law 97. Over the next year this work will expand in partnership with the Real Estate leadership team.

Columbia has made significant progress in this area through its participation in the New York City Mayor's Plant Powered Challenge. As the first signatory, Columbia Dining's menu changes have already decreased emissions associated with food procurement. A new analytics tool was created to translate procurement details into emissions and will be reported through the Cool Foods calculator to comply with the Challenge. The goal is to reduce food-based emissions 25% by 2030. This effort and the tools developed to achieve it will be used as a model to scale up in other areas.

CULTURE CHANGE AND CAMPUS AS A LIVING LAB: OVERVIEW

Empowering Columbia students to craft solutions that will help the University achieve its sustainability targets by using the campus as a lab is critical to achieving the University's commitment to educate future generations, create knowledge that will take humanity forward, and invest in community both locally and globally.

Over the past ten years, students have helped shape the University's sustainability efforts in a number of ways, including faculty-led capstones, thesis work, student club projects, and working groups that curated both of the University's sustainability plans. Most recently, student capstone analysis and research were pivotal to help position the University to be the inaugural signatory to the New York City Mayor's Plant-Powered Challenge. Over time, student interns have researched and developed the University electric bike page, generated commuter tips for Columbia affiliates, and published stories celebrating the unique commutes of some that come to work at Columbia. This year, the Office of Sustainability hired the University's first Campus as Lab intern to help structure a more formal program to increase opportunities for students to apply what they learn in the classroom to solve a specific sustainability challenge at the University.

In the coming year, the goal is to identify additional operations projects that can be paired with faculty and courses on a regular basis, some over the course of one to two years with each semester's work informing the next.



CULTURE CHANGE AND CAMPUS AS A LIVING LAB: NEWS



Campus as Lab Workshop Sparks New Ideas for Student Capstone Projects

Partnership between faculty, students, and administrators helps connect academic learning and real-world sustainability improvements on campus.

Read more >

Capstone Researches Efficiency Improvements for Columbia's Intercampus Shuttle and Park-and-Ride

The students spent the semester learning about Columbia's Intercampus Shuttle bus service and conducted research to improve shuttle efficiency, accessibility, and communications.

Read more >

Student Capstone Leads Columbia to Sign on to NYC Plant-Powered Challenge

Columbia Dining and the Office of Sustainability partnered with the Climate School's Undergraduate Program in Sustainable Development who explored ways of cutting Columbia's foodrelated emissions.

Read more >

Office of Sustainability Leads Sustainability Planning Workshop at EcoReps' Youth Climate Summit

The session, titled "Using an Innovative and Fun Engagement Process to Create a Sustainability Plan," was driven by the Office of Sustainability's expertise in planning and implementing Plan 2030.

Office of Sustainability's Jessica Prata Speaks at "Everyone Can Teach Climate" Event

The event's mission of supporting the integration of climate teaching across disciplines and fostering connections to campus as a living lab supports Columbia's Plan 2030 and the Office of Sustainability's new implementation pathway Living Net Zero.

Read more >

2024 Earth Week Event Showcases Student Research and Operational Progress

As part of Earth Week 2024, the Office of Sustainability and The Climate School co-hosted the annual Earth Month Showcase at The Forum.

Read more >

Data-Driven Dining: How Columbia is Using Analytics to Cut Carbon Emissions

To manage and analyze the information surrounding the Plant-Powered Challenge, Columbia brought on board a dedicated Data Analyst Intern to help transform raw data into actionable insights.

Read more >

Read more campus as lab news on our website.

Read more >

CULTURE CHANGE AND CAMPUS AS A LIVING LAB: PROGRESS

GOAL: Columbia commits to enhance student education and access to the campus as a living lab.

PLAN 2030 STRATEGIES

Enhance the sustainability literacy of the University community.

Empower students to identify and implement mechanisms to change the culture on campus.

PROGRESS SINCE APRIL 2023

In the past year, a series of Think Tanks brought together 41 administrators, school representatives, and students from across 15 schools and departments to elevate thinking around ways to better integrate sustainability into their schools. The series focused on better understanding decentralized practices related to business travel, procurement, and waste, and brainstorming ideas about reducing emissions associated with these impact areas. Looking ahead, the University will evaluate pathways to pilot or implement the ideas raised in the Think Tanks.

The Campus as Lab program is the key pathway to realizing this strategy, and the 2023 capstone class that worked with Columbia Dining to prepare Columbia to be the first signatory to the Plant Powered Challenge is a perfect example of how students have the power to shift the culture on campus when working collaboratively with University administrators. To drive this work forward and with funding from the Climate School, this year Columbia hired a Campus as Lab student intern to scale up the program, generate a pipeline of projects with administrative teams across the University, and connect with more faculty that include capstones in their curriculum. The goal is to continue increasing the number of students using the campus as a living lab through capstones, theses, internships, fellowships, and collaboration with student sustainability clubs. Student sustainability clubs have come together this past year to discuss how they can better support each other and expand their reach by working collaboratively on events.

WATER CONSERVATION AND CAPTURE: OVERVIEW

Water management and conservation is a key tenet of the University sustainability plan. The issues in New York City around sewage overflow and flooding reaffirm Columbia's responsibility to find new, creative ways to curb such problems.

In the coming years, there will be additional effort on data synthesis and analysis, critical to better understand water usage across all our campuses and further reduce consumption. As part of this, there will be steps forward to explore new opportunities for water conservation and capture.



WATER CONSERVATION AND CAPTURE: PROGRESS

GOAL: Columbia commits to water conservation, capture, and awareness.

PLAN 2030 STRATEGIES

Expand awareness of water usage.

Explore ways to support equitable water distribution and protection of the watershed that provides NYC water.

Seek opportunities to capture rainwater and divert it from contributing to sewage overflow.

PROGRESS SINCE APRIL 2023

The University maintains centralized water consumption data in conjunction with the billing it receives from the Department of Environmental Protection. In continuing to broaden awareness related to water usage the University will employ data analytics to confirm these baseline numbers across its campuses so it can take further steps to advance this strategy.

Columbia has continued to increase the installation of water filling stations in buildings across its campuses to support equitable water distribution. While Columbia researchers are actively engaged work related to the protection of the watershed, the University will this year determine if there are other viable opportunities to support this work through an operational lens.

Columbia is committed to taking action that help mitigate its contribution to water related issues in New York City. Over the past number of years three holding tanks have been installed at the Morningside campus to prevent overflow during major storms. Further opportunities will be explored and executed as appropriate in the coming years at other campuses, including capturing rainwater for possible reuse in some capacity.

KEY PRIORITY: SCOPE 3 EMISSIONS PLANNING

During Spring 2024, Columbia schools and departments elected key representatives to participate in a series of nine think tank workshops. These sessions discussed the topics of procurement, business travel, and waste and reuse/circularity.

The goal of the workshops was to understand and identify both barriers and opportunities to impact these topics. Students were also invited to participate in a track to share their unique perspective. A total of 41 representatives from across 15 schools and departments participated in the series.

Next steps will digest key findings and choose opportunities to advance as part of the University Scope 3 emissions planning process. The plan is to structure programs that provide schools and departments with vetted, streamlined pathways to impact key sustainability topics that will ultimately support Plan 2030 goals.

Business Travel



Procurement of Goods and Services



Waste and Reuse



Early data indicates that about 70% of Columbia's emissions come from Scope 3 activities. To reach net zero by 2050, we'll need to reduce all categories of Scope 3 while concurrently tackling Scopes 1 and 2.

Learn more on our website.

TOP PRIORITIES FOR THE NEXT YEAR

Over the next year, Columbia will continue to build out its capacity to embed climate action and sustainability excellence across every aspect of the University's work. This focus is essential to meeting our climate and sustainability ambitions. The following priority initiatives will be essential as we look forward to success in 2025 and beyond.

Deliver Important Progress on Plan 2030 Commitments

- Strategic Campus Electrification: Electrification of building systems and vehicles across each of our campuses is critical to achieving our targets. In 2025, we will be working to rationalize these approaches to deliver cost-effective and achievable investments.
- Campus as Lab: Our campuses are an important asset to connecting our climate and sustainability ambitions with our educational mission. In 2025, we will be working to increase our capacity for offering these learning opportunities on campus to our students and faculty.
- Sustainability Planning: Delivering on our Plan 2030
 ambitions will require substantial new progress across all six
 commitment areas. In 2025, we will be focusing efforts on
 critical streams of work in materials management in
 partnership with our Campus as Lab work. Plans will be
 developed that are data-informed and aligned to achieve our
 zero waste ambitions.

- Rollout of Sustainable Design and Construction Standards:
 Modernized design and construction standards will ensure that
 long-term capital investments are being made with an appropriate
 view into the future. In 2025, we will be working to roll-out new
 high-ambition standards to guide all new and
 renovated space on campus.
- Pathways to Living Net Zero: Clear guidelines will help schools and departments drive local change within their organization and contribute to Plan 2030. In 2025, we will take the input from the Think Tanks and build new pathways to participation that make it easy for all stakeholders to know how to do their part.

Support the Work of the Committee on Research Funding from Fossil Fuel Companies

In 2025, the University will be continuing to evaluate the question of the University's acceptance (or not) of research funding from fossil fuel companies due to concerns about the potential undue influence of the fossil fuel industry on academic research that have been reported in the press and in scholarly publications.

In each of these priority areas, and across all of our work, we are building out the capacity to integrate all of Columbia's climate and sustainability work under one comprehensive program for all of the University's campuses, operations, policies, and initiatives. Taking this all-of-University approach to all of our climate and sustainability initiatives will ensure a coordinated approach to planning, tracking, and reporting on Columbia's climate and sustainability leadership.

GET INVOLVED

Collaborate with student-led climate and sustainability groups

Student sustainability groups that wish to network with each other, learn and support each other's mission, and find new ways to collaborate on events together, consider self-identifying your group using our online form. Group leaders will be invited to meet periodically during the semester along with the Office of Sustainability. <u>Visit our website</u> to read more about the most recent gathering.

Visit us at office hours

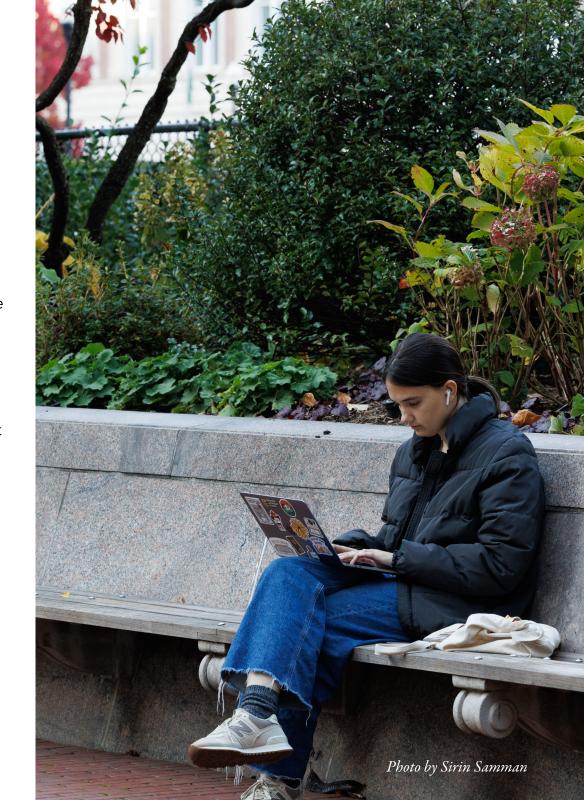
The Office of Sustainability offers office hours every Tuesday. If you have an idea or want to learn about a campus sustainability topic in more detail, <u>visit our website</u> and submit the form to request a meeting time.

Participate in a Campus as Lab project

If you are a faculty member who wishes to bring campus sustainability into your classroom or an administrator with a project you'd like to submit to the Campus as Lab program, visit our website for details on how to submit your idea. If you are a student interested in how this program is evolving and what new opportunities may become available for internships and fellowships, please follow our social media channels and stay tuned for updates.

Send us your ideas

Send your ideas to environment@columbia.edu.



UPDATES FROM OUR OFFICE

Columbia Names Daniel Zarrilli as Inaugural Chief Climate & Sustainability Officer

In a major step toward achieving its ambitious climate and sustainability goals, Columbia University has named Daniel Zarrilli as its first-ever Chief Climate & Sustainability Officer. Zarrilli served most recently as Special Advisor for Climate and Sustainability at Columbia, where he supported the creation of the Columbia Climate School, advanced the University's local and global climate-related partnerships, and advised on pathways to achieve the University's deep decarbonization goals.

Learn more >

Prata Named 'Notable Leader in Sustainability'

Jessica Prata Cianciara has been recognized as a 'Notable Leader in Sustainability' by Crain's New York Business. The list of Notable Leaders in Sustainability highlights professionals driving policy, investing, or programs to address climate change in their industry.

Learn more >

Meet the Student Interns Contributing to a More Sustainable Columbia

Working with the Office of Sustainability on a variety of projects from Transportation Demand Management to reducing emissions from food procurement, these students are shaping sustainability at Columbia while completing their coursework. Read about each of the Office of Sustainability's interns, their projects, and where they hope to take their real-world sustainability experience beyond Columbia.

Samreen Afzal Joins Science Based Target Initiative Expert Advisory Group

Afzal, Director of Sustainability Analytics at Columbia University, has joined the Science Based Target initiative (SBTi) Expert Advisory Group (EAG) for Automative Standards. The EAG is a group of volunteer advisors with in-depth knowledge of global climate change mitigation and/or expertise in science-based target setting from a diversity of perspectives that acts in an advisory capacity to SBti over the duration of the project.

<u>Learn more ></u>



Photo by Sirin Samman

