

Annual Sustainability
Progress Report:
2022-2023

**SUSTAINABLE
COLUMBIA**

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Because Columbia is one of the world's great academic centers in climate science, we have more than the usual responsibility to play a leadership role in adapting to and stemming this emerging threat to the planet.

President Lee C. Bollinger

introduction

Columbia's ten-year sustainability plan, Plan 2030, completes its second full year this Earth Day. Aligned with the Intergovernmental Panel on Climate Change, the United Nations Environment Programme, and the Science-Based Target Initiative, Plan 2030 sets the University on an aggressive trajectory to reach net zero emissions by 2050 or sooner. I am pleased to share some recent highlights.

Last year, Facilities and Operations leadership teams at both the Morningside and Medical Center campuses commissioned studies to develop a Strategic Decarbonization Master Plan to meet Plan 2030 and NYC Local Law 97 emissions reduction requirements. Recommendations from the studies include electrification of the Morningside campus Central Energy Plant coupled with various emissions mitigations solutions at standalone academic and residential buildings, as well as potential electrification and energy efficiency initiatives at the Manhattanville and Medical Center campuses.

Parking and Transportation administrators, faculty, and students teamed up to curate a 10-year electric vehicle (EV) expansion plan for its commuter and 24-hour parking garages at its Morningside, CUIMC, and Lamont campuses. Two new EV ports have been installed this year at the faculty parking garage in 560 Riverside Drive and 24 new bike parking spaces were added on Morningside campus.

Columbia's Procurement team led the development of a new partnership with Amtrak to provide access to heavily discounted "Saver" fares which will be fully refundable for travel along the Northeast corridor between the major Metropolitan areas of NYC, Philadelphia, Boston, Baltimore, and Washington, DC. This new arrangement provides the necessary extra incentive to encourage Columbia travelers to travel by train along the busy northeast corridor instead of flying. Business travel by air produces significantly higher Scope 3 emissions than travel by train.

The campus continued to serve as a living lab, partnering with the Undergraduate Sustainable Development program on two capstone projects about assessing and improving transportation sustainability on campus. One group studied vehicle and charging recommendations approaching 2025, and the other was tasked with creating a strategy for tracking and reducing Scope 3 emissions from freight.

In these ways and so many more, members of the Columbia community made the decision to embed sustainability into what they do, and took responsibility to own and drive change. My team and I look forward to continuing to partner with all of you to break ground on new sustainability milestones yet to come.

- Jessica Prata, Assistant Vice President, Office of Sustainability



at a glance

O Columbia has committed to **net zero emissions** by 2050 or sooner.

Morningside has reduced its greenhouse gas emissions by **45%** since its baseline year of 2006.*

Columbia's newest biomedical research building will be a 100% electric laboratory, one of the first net zero buildings of its kind in New York City.



A ten-year plan to expand electric vehicle (EV) charging on campus was produced this year, and two new EV ports were added on campus.



24 new bike parking spaces were added on the Morningside campus.



Columbia is currently designing its first non-fossil fuel building: a 6-story renovation which will sever its reliance upon gas and fuel oil for heat generation.



Columbia is credited with **100%** renewable electricity through its purchase of carbon offsets.*

Columbia conducted its first ever electrification studies which will guide the University's pathway to electrification.



Lamont plans to reduce its campus water system energy consumption by replacing equipment with energy-efficient, modern equipment. Campus water pumps will be replaced with new variable frequency drive (VFD) pumps, projected to be complete by 2024.



Columbia completed a screening level inventory for Scope 3 emissions, which make up about **75%** of the University's total emissions.

The Office of Sustainability collaborated on 2 student capstone projects, committed to using the campus as a living lab.



*Actual GHG emissions have increased as the campus has resumed full operation, two new Manhattanville buildings opened, and the city implemented requirements. The University has purchased carbon offsets as a short-term solution to ensure alignment with its commitments, and as it plans for large-scale operational emissions reduction when the campus undergoes electrification in the next few years.

0
1
2
3

— net zero

Columbia University commits to net zero greenhouse gas emissions by 2050 or sooner.

At Columbia, we recognize that to be truly sustainable is to take a multi-faceted and multi-tiered approach. We are looking to tackle climate and sustainability issues through world-renowned research occurring right here on our campus, engaging staff leadership and individual participation. Ranging from energy conservation efforts to award-winning reuse programs and recycling efforts, we're dedicated to creating a more sustainable planet for all.

Check out Columbia's process for rigorous greenhouse gas accounting:
sustainable.columbia.edu/ghg



science-based targets

For more on SBTs, visit sustainable.columbia.edu/sbt

Science-based targets (SBTs) provide a clearly defined trajectory to reduce greenhouse gas (GHG) emissions in line with the Paris Agreement, which aims to limit global warming to 1.5°C above pre-industrial levels. More than a thousand public entities globally are adopting SBT to translate the latest climate science from global calculations to institution-specific targets. The targets outlined in Plan 2030, calculated from the base year of 2019, align all Columbia's campuses at the highest level to take immediate action on GHG reduction efforts.

2025 interim target = 15%

2030 interim target = 42%

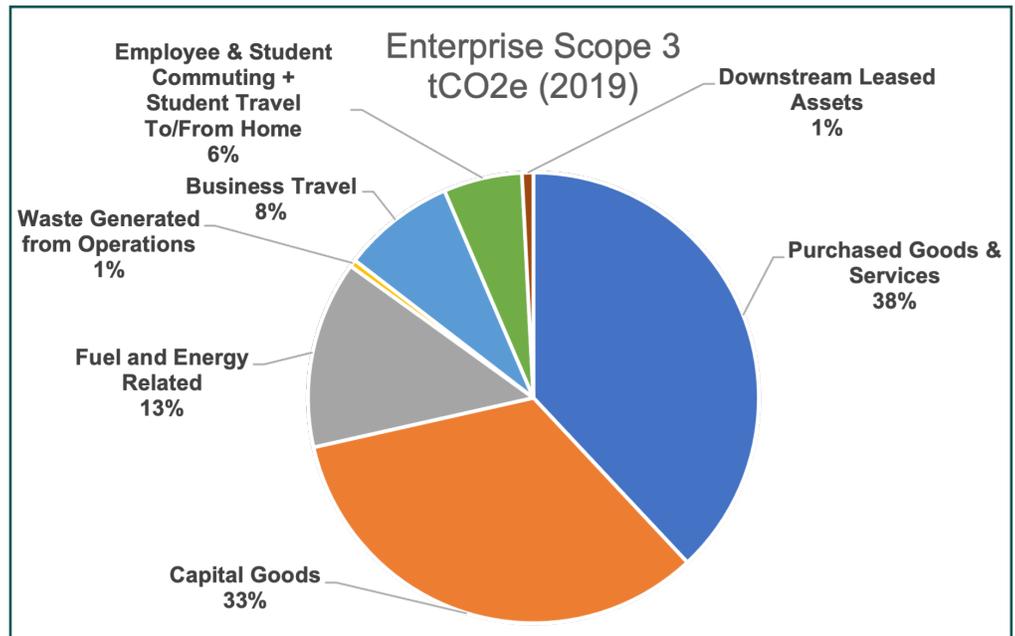
2035 interim target = 63%

By 2050 or sooner = 100%

scope 3 inventory

The SBTs above refer to Scope 1 and Scope 2 emissions, but Columbia has also committed to quantifying and reducing its Scope 3 emissions. Scope 3 emissions are all indirect emissions not included in Scope 2, and that arise from upstream and downstream activities in Columbia's value chain. Examples of Scope 3 emissions include purchased goods and services, commuting, and waste from operations.

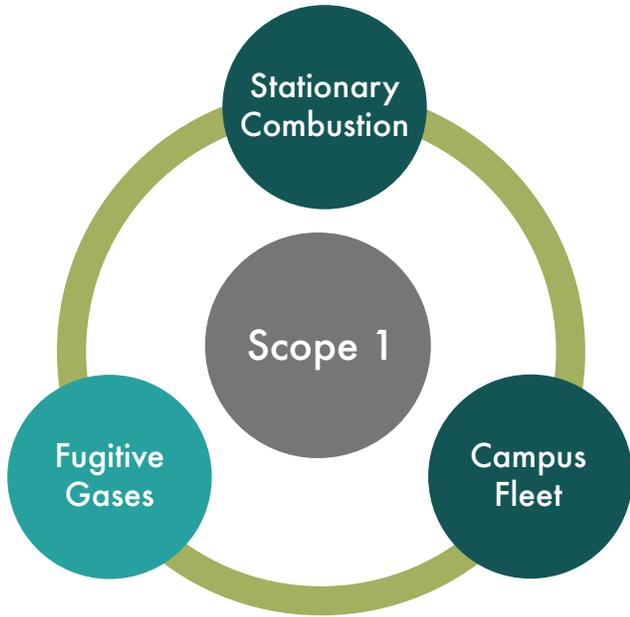
Plan 2030 sets a goal for the University to complete at least a screening level inventory of all types of Scope 3 emissions and to set targets for all material sources of Scope 3 emissions that are in line with the science-based concepts and targets described above for Scope 1 and Scope 2 targets. While Scope 3 emissions are more difficult to measure than other emission types, they make up approximately 75% of total University emissions.



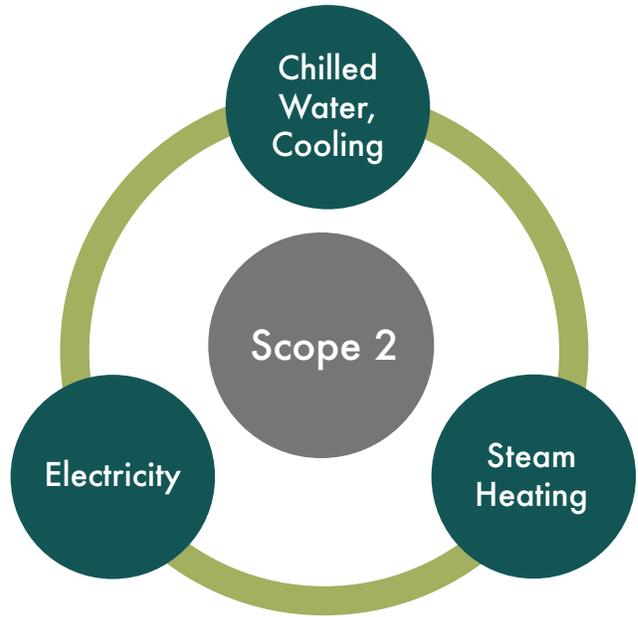
The graphic on this page shows the results of the initial screening level inventory. To arrive here the Office of Sustainability worked with consultants at Energy Strategies and applied the spend based method as approved by the Greenhouse Gas Protocol. This method applied EPA emissions factors to 2019 spend data which enabled the University to quantify emissions where specific lifecycle data is not available.

The University has already calculated the Scope 3 emissions categories of commuting and business travel, and has completed portions of others like waste and downstream leased property. The next steps in 2023-2024 will be to prioritize the most impactful areas, such as contracts and embodied carbon for example, and then engage with the appropriate University stakeholders from Procurement and University Facilities and Operations, to the individual schools and beyond, to build action plans to reduce emissions in these categories.

Direct Emissions from Operations



Indirect Emissions from Purchased Utilities



Eight (8) Scope 3 Categories apply to Columbia

- Columbia reports in full
- Columbia reports in part
- Columbia does not yet report



progress

Campus Energy

Our commitment: Achieve net zero emissions by 2050 or sooner, with an eye toward on-campus solutions.

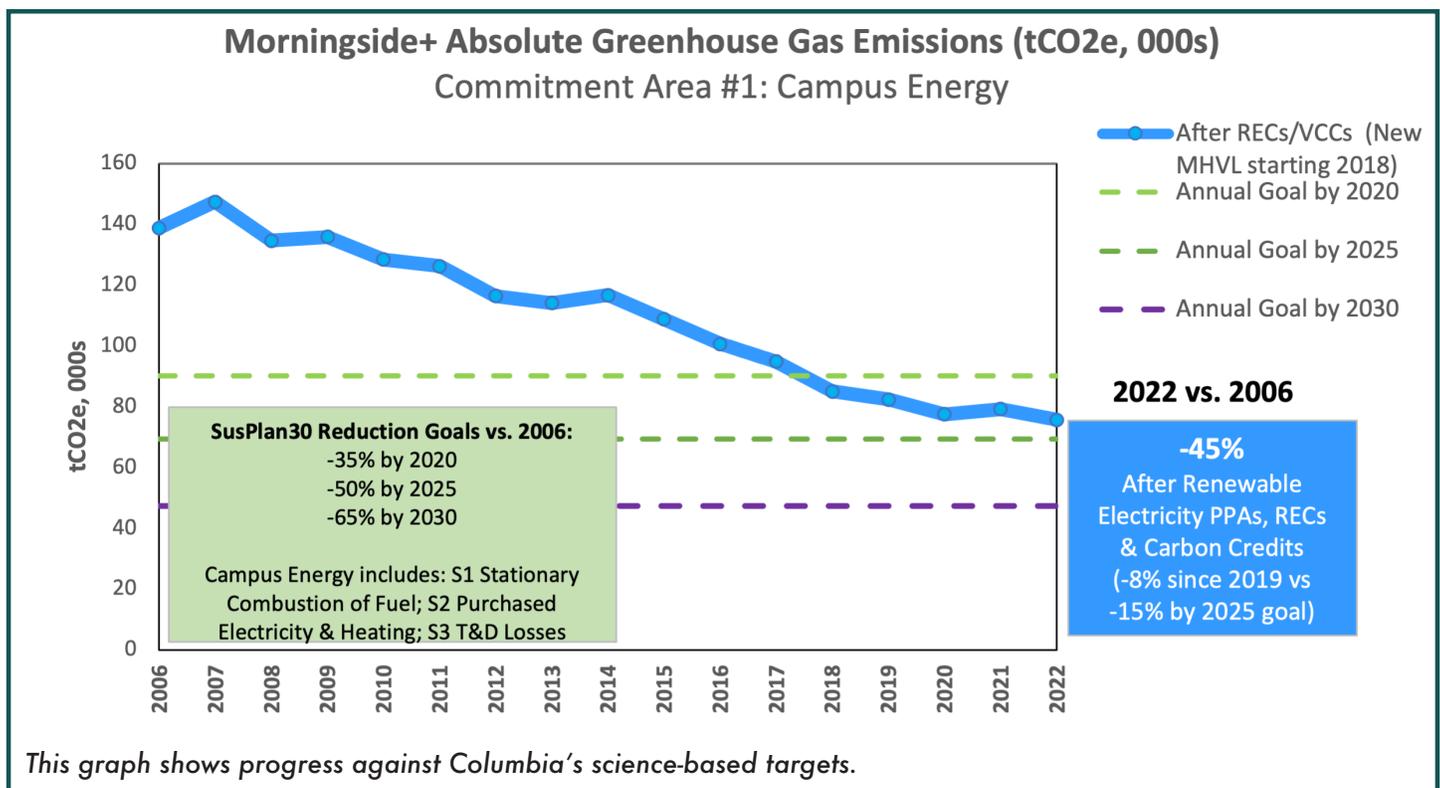
Progress highlight: Morningside+ has reduced its GHG emissions by 45% since its baseline year of 2006 and 8% since 2019. CUIMC has reduced its GHG emissions by 44% since its baseline year of 2012. Morningside+ and CUIMC conducted electrification studies which will guide Columbia's pathway to electrification.

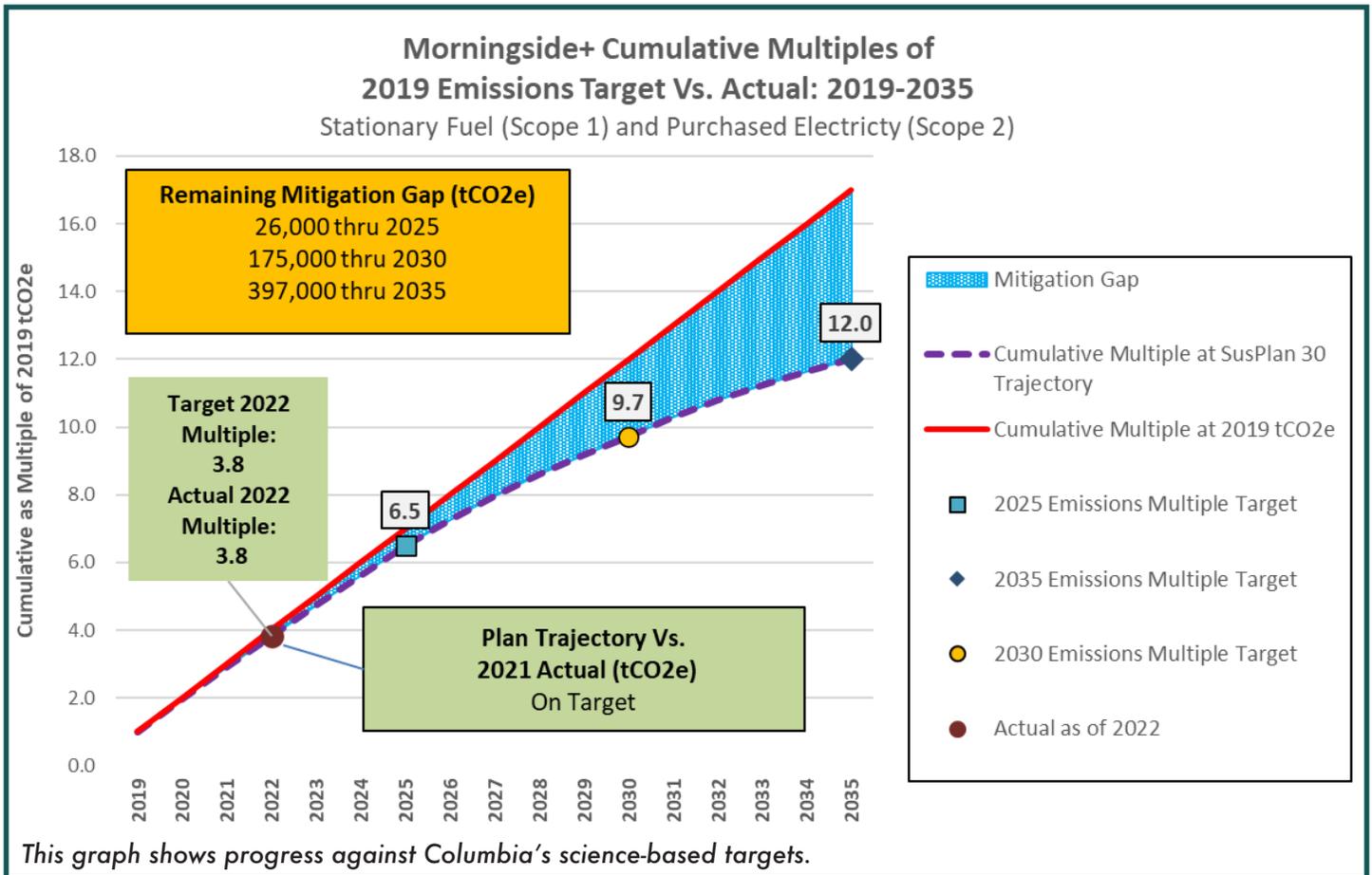


Morningside+ (MS+)

At its inception in 2006, Columbia's GHG inventory tracked a limited number of Morningside campus buildings in response to New York City's PlaNYC Carbon Challenge. Starting in 2017 with the launch of Columbia's first sustainability plan, the Office of Sustainability elevated the rigor and inclusivity of the inventory by aligning it with the International Greenhouse Gas Protocol, verifying and publicly reporting to The Climate Registry and including all buildings on the Morningside campus. In 2018 the inventory began to capture all buildings at the developing Manhattanville campus as well.

Over the past year (2022-2023), the University has seen two new buildings come online with the Business School opening at Manhattanville and a return to pre-pandemic operations at all campuses. As a result, we have seen an uptick in our Scope 1 emissions. As plans to electrify all campuses take shape — an effort that





will significantly reduce our Scope 1 emissions long-term — Columbia is pursuing the short-term strategy of purchasing carbon offsets to ensure continued alignment with University’s sustainability commitments and SBTs.

As a result, the Morningside+ portfolio has reduced emissions by 45% from a 2006 baseline and are on track with our goal.

Analysis of the Morningside Central Plant electrification options is largely complete. The recommendation is under review with University leadership. A master plan and launch of the initial stage is expected in 2023. Analysis and masterplanning for other portfolios (Manhattanville Central Plant, Academic, and Residential) will also ramp up in 2023.

LED lighting upgrades were completed in multiple buildings on the Morningside campus, including Havemeyer, Havemeyer Extension, Chandler, Mudd, and Engineering Terrace. The LED upgrade program is expected to continue through 2030.

Approximately 560 measures identified during a 2021 retro-commissioning exercise were completed in 2022. Currently, Columbia is performing energy audits and retro-commissioning in 29 additional buildings. The University also initiated a campus-wide survey and re-calibration of sub-metering assets. Once calibrated, these meters will be used to validate and inform future energy conservation work.

This year, Columbia expects to award and complete a campus-wide upgrade of the insulation on our steam piping network.

In Depth: Electrification Studies Yield Pathways to Net Zero Emissions by 2050

Studies were recently conducted to develop a Strategic Decarbonization Master Plan that would meet Plan 2030 and NYC Local Law 97 (LL97) emissions reduction requirements. Recommendations from the studies include electrification of the Morningside campus Central Energy Plant as well as potential electrification and energy efficiency initiatives at the Manhattanville and Medical Center campuses.

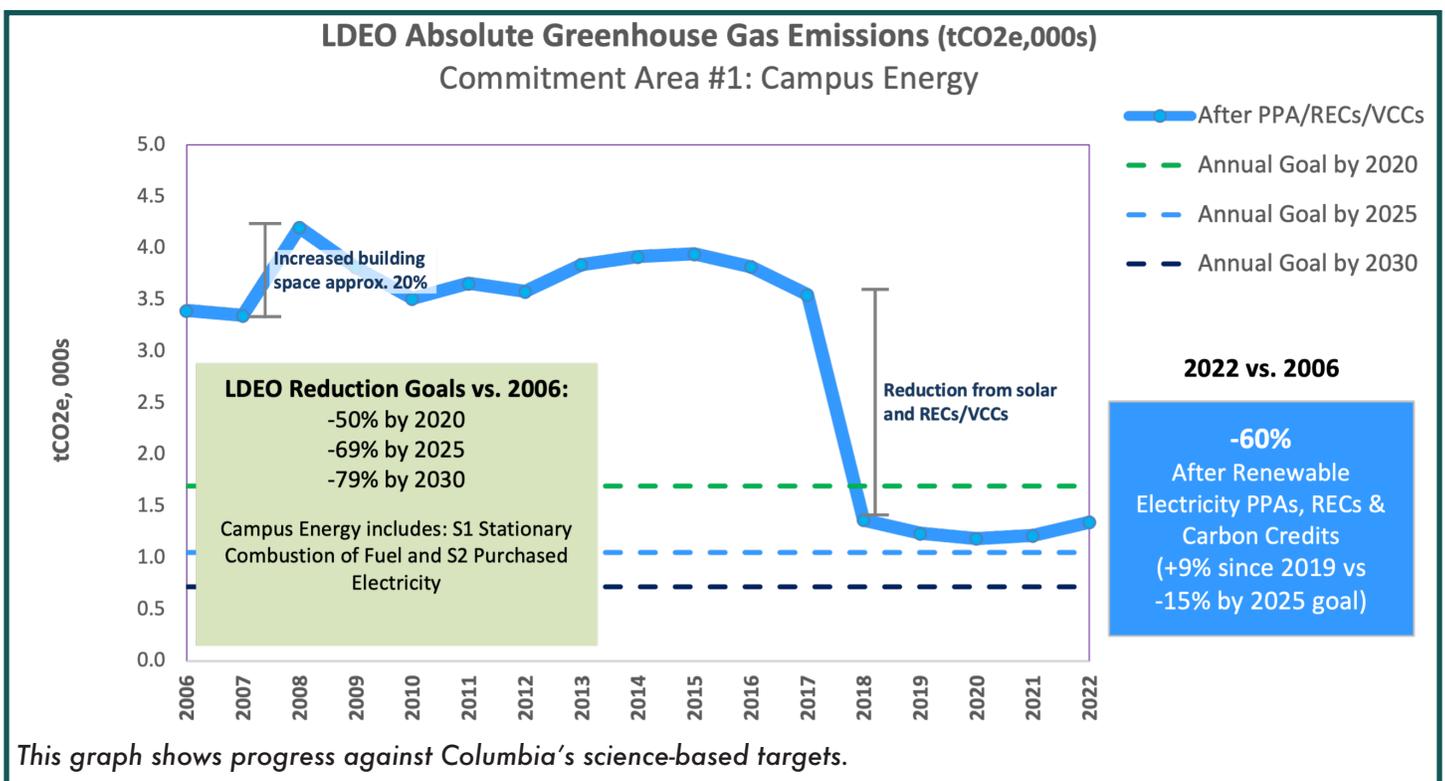


Columbia's Morningside Central Energy Plant: upgrading to electric steam boilers, steam heat pumps, or hot water heat pumps. Each comes with varying degrees of efficiency, cost, and disruption to campus activities. Meetings around a favored pathway continue to be held with key stakeholders and a decision is expected in the coming months.

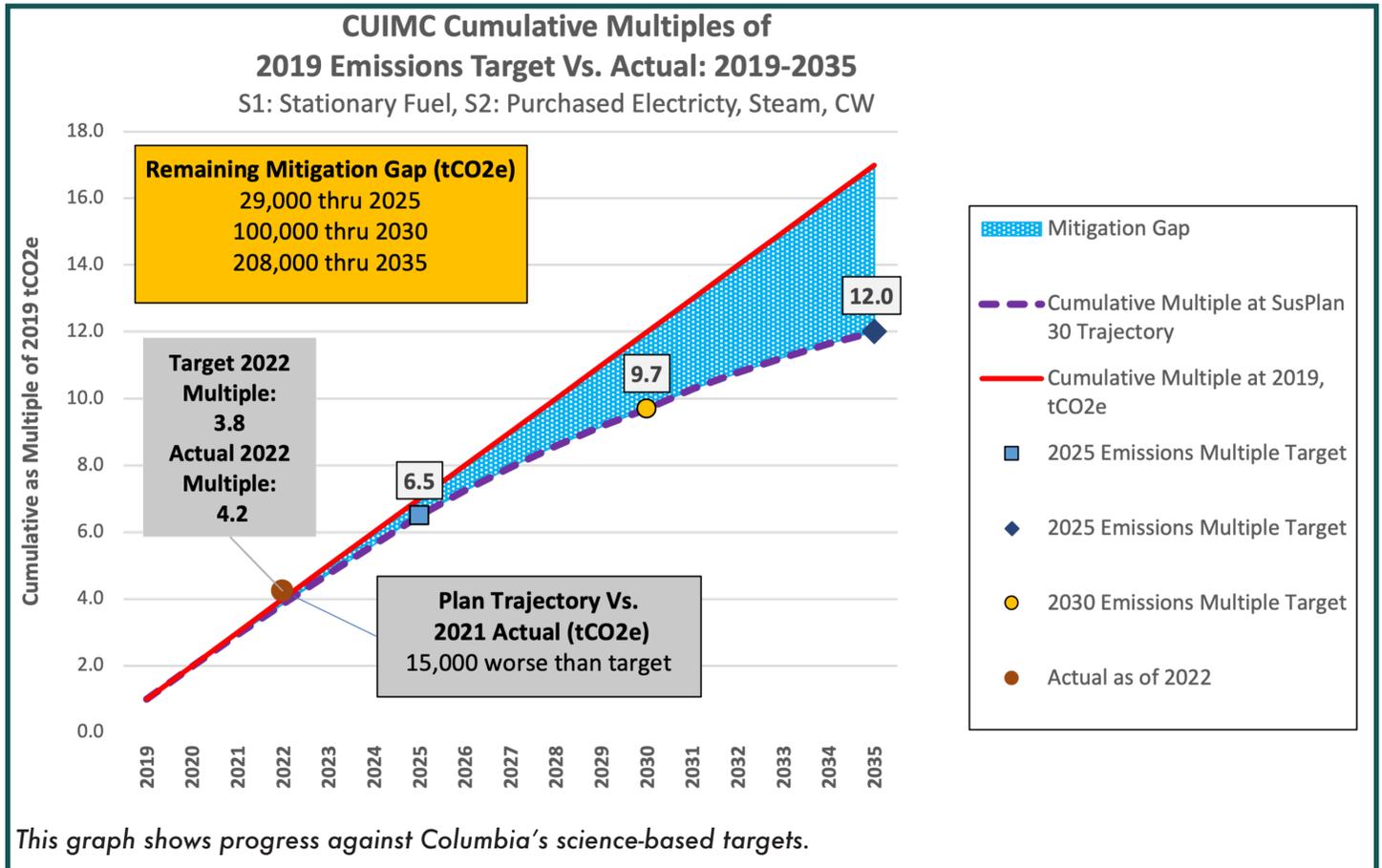
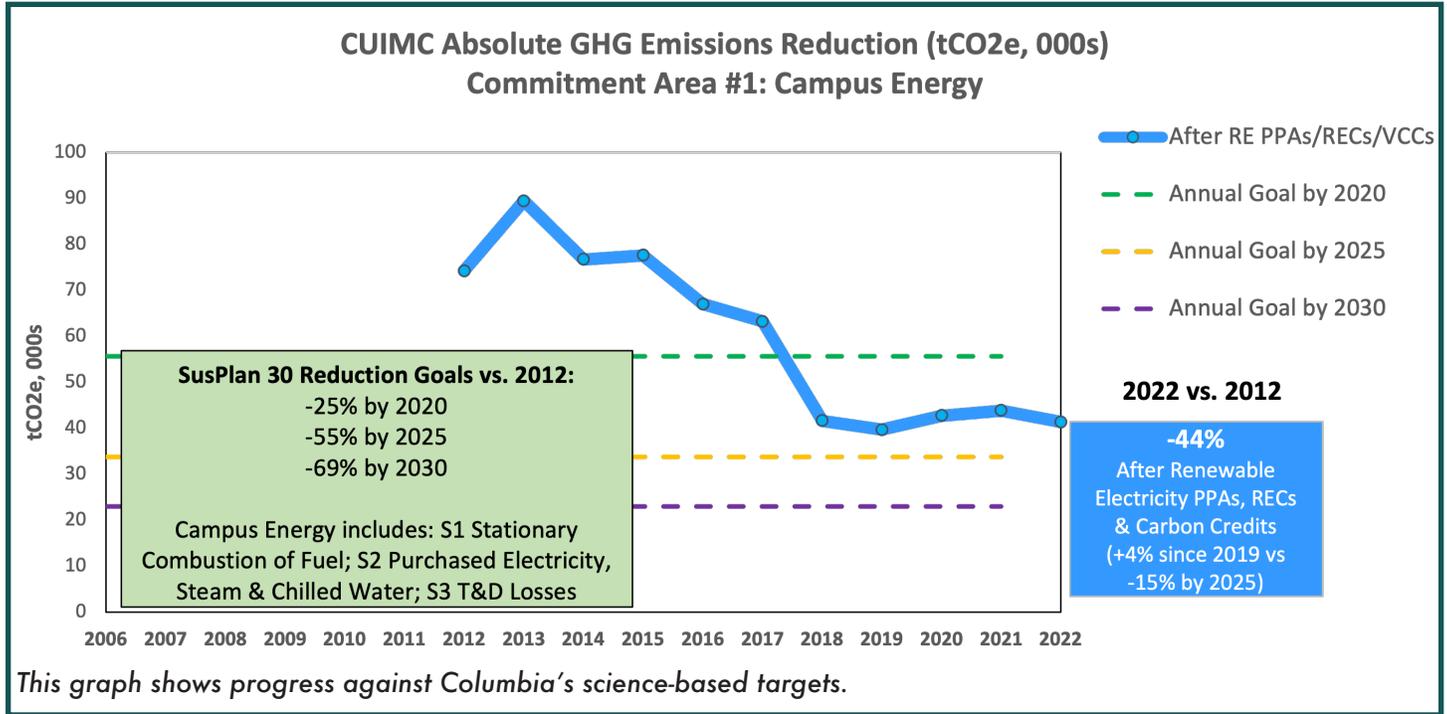
The Morningside study determined that building-side energy conservation alone is insufficient to meet the University's climate goals, and that onsite renewables are not a practical option. Three potential pathways were proposed to upgrade

Lamont-Doherty Earth Observatory (LDEO)

Lamont is in the process of pursuing the electrification of the Gary Comer building, which will reduce campus Scope 1 emissions by 45%. The goal is to electrify Comer by 2025 to take advantage of IRA tax credits. A feasibility study is complete and negotiations with funding sources are ongoing. Lamont plans to reduce its campus water system energy consumption by replacing equipment with energy-efficient, modern equipment. Campus water pumps will be replaced with new variable frequency drive (VFD) pumps, projected to be complete by 2024.



Columbia University Irving Medical Center (CUIMC)



A campus-wide energy audit of CUIMC buildings was concluded in late 2022. The audit had several goals, including identifying measures to:

1. Meet local law 97 and 88 requirements,
2. Reduce energy consumption by 50% or more at each location
3. Achieve Plan 2030 targets for each target year
4. Identify pathways for electrification, renewable energy sources and zero emissions.
5. Steer CUIMC to net zero emissions by 2050 or earlier

Two years of investigation resulted in identification of nearly 400 possible energy efficiency measures. Top solutions were chosen for implementation over the next two decades. Projects have been broken down by phases to meet local laws and Plan 2030 targets, with the first phase to be completed as soon as 2024. Implementation will result in a reduction of overall energy usage and carbon emissions compared to the 2019 baseline.

The CUIMC team has kicked off the design work on electrification projects at one building and expects to start the design work on several projects by May 2023. Additionally, the team has secured several million dollars of incentives. CUIMC has also continued to invest in steam trap replacement, insulation and lighting upgrades projects throughout its campus.



Columbia's newest biomedical research building will bring cutting-edge research facilities to the CUIMC campus while advancing Columbia 2030's ambitious climate action goals. Designed as a high-performance and 100% electric laboratory, the new facility aims to become one of the most progressive research buildings of its kind in New York City.

To get there, advanced air source heat pump heating and heat recovery lab ventilation will be

integrated with a high-performance envelope where glazing areas and components are optimized based on solar orientation and daylight quality to exceed the requirements of NYC energy conservation code. When completed, the building will only use electrically generated hot water, enabling the future retrofit of the existing Russ-Berrie thermal plant, and ultimately, carbon neutral operations for the block. As result, the building will operate below NYC's Local Law 97 carbon limits for 2030 and 2050.

Going one step further, the building incorporates diverse sustainability and wellness features, including EV charging, stormwater management systems, green roofs for heat island mitigation, bird-safe glazing, and a network of restorative common spaces focused on daylight and biophilia, which will grant the building a LEED Gold certification. The project will result in less fossil fuels burnt and better air quality and will show that it is possible to transition to a fully decarbonized built environment in NYC.

Transportation

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

Progress highlight: A ten-year plan to expand electric vehicle (EV) charging on campus was produced this year, and two new EV ports were added on campus.



Morningside + (MS+)

Fleets:

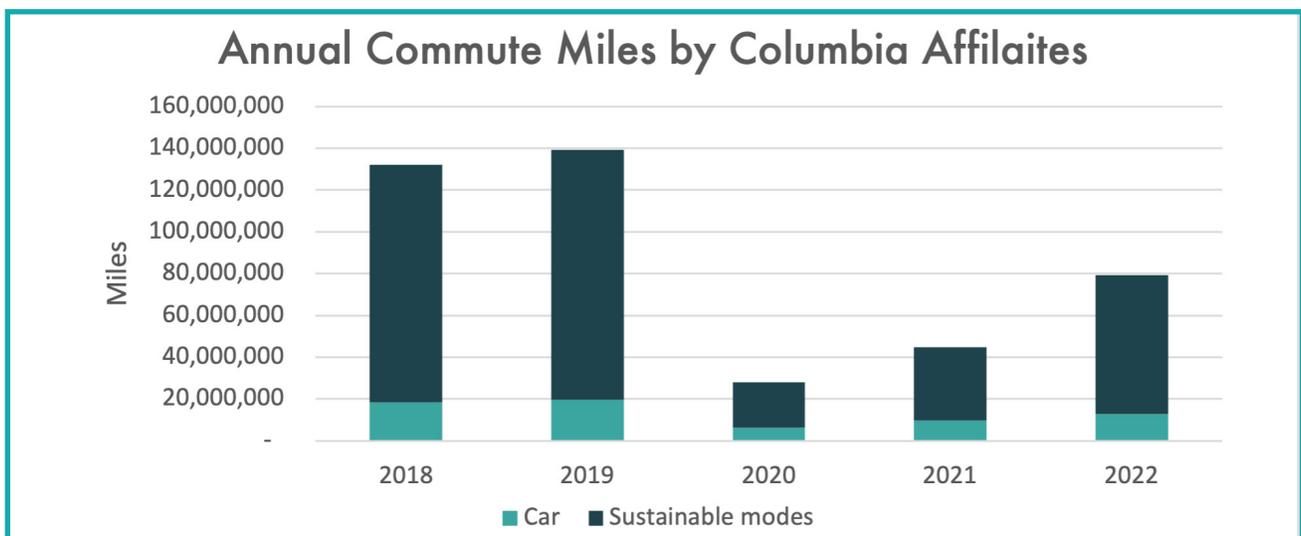
Columbia's procurement policy was updated to meet Plan 2030's requirement that departments only purchase hybrid or electric vehicles (pending market availability). Since our last report in 2022, Columbia has added a plug-in hybrid electric vehicle and four hybrid-electric vehicles to its fleet.

In Fall 2022, a capstone group analyzed Columbia's vehicle operations and made recommendations on how to prioritize electric vehicles. Recommendations were to begin with heavy emitters including non-electric University shuttles and vans.

Columbia offers a comprehensive shuttle bus network to facilitate travel between its campuses. The shuttle network is operated mostly by state-of-the-art electric buses which provide free and sustainable commute options for affiliates living near its stops. Columbia Transportation is currently acting as a client for a student capstone project that will analyze the shuttle service and propose enhancements.

Commuting:

Columbia recognizes that reduced emissions from commuting are a co-benefit of remote learning and working. Columbia's department managers are responsible for evaluating and determining which employee positions lend themselves to a hybrid work arrangement and will offer that option to employees on a case-by-case basis. Although commute travel and subsequent emissions have crept back up since the pandemic has subsided, results from the 2022 Columbia commute survey indicate that total miles traveled are still



down 44% from 2019 levels. Within that, commuting miles traveled by personal cars are down 35%.

Since 2017, Columbia has operated its own Park and Ride service from its Lamont campus in Palisades, New York to support affiliates living in car-centric Bergen and Rockland counties. Due to popular demand, in 2022 the parking capacity for the service was increased by another five spaces which meant that the waitlist had now been fully absorbed. A “parking buddy” program was also implemented to support affiliates on a hybrid work schedule who want to share spaces and costs.

In 2022, Columbia completed a 10-year electric vehicle (EV) expansion plan for its commuter and 24-hour parking garages at its Morningside, CUIMC, and Lamont campuses. Two new EV ports have been installed this year at the faculty parking garage in 560 Riverside Drive and 24 new bike parking spaces were added on Morningside campus.

In January 2023, the structure of parking permits has been adjusted to a daily parking rate at Columbia's Manhattanville campus commuter parking garage. This is in line with best-practice planning principles to encourage dynamic commuting, meaning people can more easily choose sustainable commute modes like biking, walking, and transit when the situation allows and are not locked into commuting by car.

In Depth: Columbia Partners with Amtrak to Encourage Business Travel by Train

In January, 2023, Columbia partnered with Amtrak to provide lower negotiated rates on rail travel on Amtrak's Northeast Corridor (NEC), which connects the major economic areas of New York City, Philadelphia, Boston, and Washington, DC.

In addition to financial savings, this new agreement enhances the competitive edge rail has over flying, reducing emissions and promoting environmentally-friendly travel to these frequented destinations.

“Per passenger mile, rail has a much smaller emissions impact so we want to make certain Columbia affiliates are aware of these new travel benefits,” said Daniel Allalemdjian, Director for Sustainability and Transportation. “We encourage people to choose rail travel over flying for these nearby cities that are frequented by Amtrak.”

The negotiated fares can be booked online using Concur or over the phone with World Travel Inc. Columbia travelers will now have access to the “Saver” fare which was previously only available on Amtrak.com. Unlike the public Saver fare which is non-refundable, our Saver fare will be fully refundable. Benefits include:



- Access to heavily discounted “Saver” fares which will be fully refundable.
- Negotiated rates on all Acela Business Class travel between Boston, MA and Washington, DC
- Negotiated rates on Northeast Regional Business Class and Coach travel for multiple travel segments.

Concur World Travel allows users to compare air and rail travel emissions data, making it easy to choose the most sustainable travel option. According to Amtrak, traveling by rail on Amtrak's Northeast Corridor results in 73% less carbon emissions than flying.

Freight:

In the Summer of 2022, a capstone group analyzed Columbia's Mail department and Manhattanville loading dock, as well as Staples (Columbia's preferred stationary supplier) to propose methodologies for tracking and reporting GHG emissions from freight delivery to Columbia. Report findings will be used to help plan, track, and reduce the environmental impact from freight travel to and from the University.

Lamont-Doherty Earth Observatory (LDEO)

Lamont will electrify the campus fleet by replacing fleet vehicles with EVs as they are retired. The campus will also replace its non-snow removal fleet with EVs as they reach the end of useful life. Lamont plans to electrify its snow removal fleet when equivalent EVs hit the market. The first delivery vehicle has been replaced with a hybrid, and the second vehicle replacement is expected in 2024. Unfortunately, no electric trucks currently on the market or projected for the next couple of years provide the torque and towing capacity required of Lamont's snow removal operations.

Responsible Design and Construction

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

Progress highlight: Columbia is currently designing its first non-fossil fuel building: a 6-story renovation in the undergraduate housing portfolio which will sever its reliance upon gas and fuel oil for heat generation.



Columbia is currently designing its first non-fossil fuel building: a 6-story, building-wide, significant renovation which will sever its reliance upon gas and fuel oil for heat generation. Instead, the building will use a variable refrigerant flow (VRF) cold climate air source heat pump application. The group also performed a ground source test to determine the thermal capacity of the campus at one future site development and are beginning the drilling and testing process at an additional site development. The results are expected later this year. The geo-exchange field is a primary option to be incorporated in new Manhattanville building developments to serve as the heating source.

A clean construction program has been implemented at building projects even beyond the obligatory borders of the campus. Columbia is committed to exceeding the construction code requirements with regard to dust control, noise pollution control, equipment and vehicle emissions, and pest management control. While this program incurs additional resources, the University recognizes the advantages of supporting the community and environment. Columbia implemented an enhanced energy management network to monitor, trend and manage the Manhattanville campus building portfolio. This real-time, critical data is analyzed to optimize the University's approach to planning new building development while also planning for the conversion of legacy fossil fuel heat assets and emissions reduction.

Columbia's new tennis center (designed in 2020 and projected for completion in mid-2023) is tracking for Leadership in Energy and Environmental Design (LEED) Gold, exceeding Columbia's's prior institutional commitment to LEED Silver on all major projects. Jerome Greene Law Library (currently in design) is targeting LEED Gold +.

The University has completed work with their furniture vendor Steelcase to determine that all Steelcase products in the Furniture Standards Program meet environmental and health standards. The University also worked with its standard carpet tile manufacturers to determine that they have take-back programs for demo'ed carpet tile to be recycled into new carpet tile. Columbia has evaluated Low-E glass coatings for suitability in historic buildings, and the window replacement standard has been updated. The University is on track to award its Sustainability Program Renewal project to examine opportunities beyond the current LEED Silver target, small project checklist, and other sustainability measures currently in place, projecting completion in the fourth quarter of 2023.

When flooring is in need of replacement in Campus Services-owned spaces on the Morningside campus, it is replaced with carbon neutral flooring from Interface: a third-party verified company that provides lifecycle analysis data to calculate emissions savings for each floor replaced. Since 2020, Columbia has purchased 332,182 square feet of carbon neutral flooring from Interface, which will result in the retirement of 413 metric tons of carbon dioxide. That's the equivalent of the emissions from a car traveling 1,025,068 miles.

In Depth: Design and Construction Sustainability Standards

Combined, Columbia's campuses include around 17 million square feet of various building types, ages, sizes and program uses. Capital project portfolios at each respective campus consist of a broad range of project types and sizes, from small renovations to ground-up buildings. Most capital projects on the historical Morningside campus generally rely on existing campus utility infrastructure for all services.

To align with the goals established in Plan 2030 for project-based sustainability efforts, Columbia 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 science-based targets and Local Law 97 (LL97), ensuring the University meets them.

Toward that end, Columbia has solicited proposals from qualified sustainability consultants with extensive experience in the built environment to undertake an evaluation of the existing Design and Construction Sustainability Programs across



Columbia Business School by Iwan Baan

multiple campuses, identify deficiencies and propose solutions to renew those programs to meet the strategy outlined in Plan 2030.

The selected consultant will evaluate the existing sustainability program components and processes currently in use across Morningside, Manhattanville, CUIMC, and LDEO, and determine the gaps where current programs fall short of the Plan 2030 goals, as well as current industry best-practices. The deliverable will be a report of their findings with preliminary recommendations for structuring a University-wide program to align with university goals.

Then, the consultant will create sustainable design guidelines for projects based on the LEED framework or a LEED-equivalent framework, develop an implementable construction waste tracking program

for projects of all sizes, track “take-back” programs to reduce waste, evaluate water conservation goals and track how projects reach them. The consultant will also develop a method to measure the Scope 3 emissions of a project and limits for those emissions, and evaluate the cost and carbon effect of purchasing widely used materials in bulk to reduce transport. Training material will be prepared and six training sessions provided for internal stakeholders, project managers, and staff.

The project will have a working group and steering committee for governance, and day-to-day management will be conducted by Columbia’s Capital Project Management (CPM) team. Work is expected to begin this summer and take approximately 1.5 years to complete.

Responsible Materials Management

Our commitment: Send zero waste to landfill, host sustainable events, ensure retail tenant alignment, and practice sustainable procurement.

Progress highlight: 150,000 pounds of furniture was diverted from landfill through reuse.

Organics Collection:

The University is preparing to resume the collection of organic waste from residential buildings after a Department of Sanitation (DSNY) hiatus that began with the COVID-19 pandemic. During the State of the City address, Mayor Eric Adams announced that curbside composting will be expanded to all five boroughs by the end of 2024. The city has released a timeline for when people in each borough can expect the program to start in their neighborhoods, with Manhattan slated to resume October 7, 2024.

As the NYC Smart Compost bin program expands throughout the city, three new bins were installed on Broadway near the Morningside campus. Columbians can use these bins to drop off food scraps 24 hours a day, 7 days a week, helping reduce the amount of waste sent to landfills.

Reuse Program:

With help from IRN: The Reuse Network, Columbia Housing provided gently used bedroom, dining, and



lounge furniture sets to seven charities, providing support to organizations in need, extending the life of useable furniture, and diverting 150,000 pounds of waste from entering landfills. Columbia Facilities and Operations has been actively seeking avenues to expand its reuse program to decrease waste-to-landfill (and the associated greenhouse gas emissions) as well as save money on the cost new office furniture and other goods.

The Columbia University Reuse Program and Construction Business Initiatives work to create partnerships between local non-profits and Columbia. When gently-used items are unable to be repurposed internally, the University reaches out to certified 501 C3 non-profits to re-home the items and give them new life. The University has successfully donated stoves, washers and dryers, musical instruments, and furniture among many other items to over 70 organizations. Some of these organizations include:

- Harlem Congregations for Community Improvement
- Catholic Charities
- Lincoln Hall
- Advancing the Community of Tomorrow
- Generation Citizen
- Children’s Arts & Sciences Workshop
- NYC Urban Debate League
- African Voices Communications
- Harlem One Stop

Items	Total donated
Washing machines	6
Dryers	7
Stoves	8
Wall sconces	250
Boxes of PPE (face shields, goggles, gowns, masks, hand sanitizer)	231
Lockers	58
Printers (HP printer/scanners/fax machine)	19

Dining Halls:

Columbia Dining composts both front and back of house food waste and compostable materials in Ferris Booth Commons, John Jay Dining Hall, and JJ’s Place. Wherever possible and available, the program only uses 100% post-consumer recycled or compostable materials for food ware. Columbia Dining Plan holders all receive a reusable eco-container, reducing the need for disposable takeaway containers.

team updates

For more news and events, and to meet the rest of our team, visit sustainable.columbia.edu

Allow Us to Re-introduce Ourselves: Office of Sustainability

Formerly called Environmental Stewardship, the role of the office has grown since its formation in 2006 and under the leadership of Jessica Prata, which began in 2013. The change reflects a shift to data-driven recommendations to empower University partners and schools to reduce impact and enable the University to achieve Plan 2030.

Welcome Samreen Afzal to the Team

Samreen is the first to fill the role of Director, Sustainability Analytics, responsible for creating and implementing a strategic plan to centralize sustainability metrics and employ more rigorous and frequent analytics that ensure Columbia achieves Plan 2030 goals. In this role, she oversees the development of both internal and externally-facing sustainability data hubs and curate detailed metrics to support senior level decision-making. Samreen joined the Office of Sustainability after completing her Master of Science in Sustainability Management (SUMA) at Columbia. Samreen's background includes a variety of roles at Shell International, including supply chain, sales, marketing, Human Resources, health, safety, and environment. Her progressive professional experience within the energy sector spans over 12 years.



Dan Allalemdjian Promoted to Director, Sustainability and Transportation

Dan was hired to establish new Transportation Demand Management (TDM) initiatives at Columbia with the onset of the Manhattanville development in 2014. In his time as Director of TDM, Dan has helped launch a Columbia sponsored park-and-ride, grew the construction worker carpool program to over 90 participants, led sustainability planning around Sustainable Transportation featured in Plan 2030, played a key role in transitioning Columbia's intercampus shuttle buses to electric, acted as a client and mentor in six capstone assignments, implemented the Crown Commuter email badge incentive program, and much more! In his new role, he will continue to assist with electrifying Columbia's vehicle fleet, building on Columbia's Scope 3 emissions inventories, take a leadership role in Columbia's Sustainability network, and lead efforts to expand "Campus as a Living Lab" initiatives. Dan is most excited about engaging with departments to corral momentum, continuing to work with faculty, and highlighting Columbia's progress in sustainability.



Decarbonization and Urban Institutions Panel

On March 21, Jessica Prata, Assistant Vice President for the Office of Sustainability, participated in an Energy Week @ Penn panel discussion on the role of higher education institutions in Boston (MIT), New York City (Columbia), and Philadelphia (Penn) and how these institutions are advancing decarbonization efforts in the context of their communities. Jessica led the creation of the University's first ever sustainability plan in 2017 and its successor, Plan 2030. Jessica also served as the Co-Chair of the Ivy Plus Sustainability Consortium, and as an Advisory Board member for the International Sustainable Campus Network.



SUSTAINABLE COLUMBIA