The City University of New York
Five-Year Capital Plan FY 2018-19 through FY 2022-23
New York City Reso-A Request FY 2019

The City University of New York provides high-quality, accessible education to more than 270,000 degree-credit students at 24 campuses across New York City. The University is an integrated system of senior and community colleges, graduate and professional schools, research centers, institutes and consortia. From certificate courses to Ph.D. programs, CUNY offers post-secondary learning to students of all backgrounds. It provides the city with graduates trained for high-demand positions in the sciences, technology, mathematics, teaching, nursing and other fields. As CUNY has grown, it also has strengthened its mission as a premier research institution, building an array of modern facilities and expanding the ranks of its world-class faculty.

Located in all boroughs of New York City, the facilities at CUNY’s campuses include the traditional and the innovative. The University has 296 buildings comprising 28 million square feet of classrooms, computer centers, science and other instructional and research labs, theaters, athletic facilities, greenhouses, astronomy observatories, and spaces for many other purposes.

This book details the University’s Five-Year Capital Plan to the state and city for Fiscal Year 2018-19 through Fiscal Year 2021-22. The capital funding need is $6.7 billion: $5 billion for the senior colleges and $1.7 billion for the community colleges. The State of New York is responsible for 100% of the capital funding for the senior colleges; The City of New York shares 50% of the funding responsibility for the community colleges with the state, as per New York State education law that requires matching state-city funding equally for community colleges. University-wide, the first-year funding priorities total $1.1 billion per the Board of Trustees resolution.

The Five-Year Capital Plan was developed by the Office of Facilities Planning, Construction and Management in consultation with CUNY colleges and schools. The University’s priorities include:

- An ongoing critical-maintenance initiative to bring CUNY campuses to a state of good repair and address health, safety, security, facilities preservation and code issues.
- Completion of active and ongoing work.
- Technology projects, including infrastructure upgrades, systems engineering, and new equipment that will allow the University to develop integrated data services at the campuses and across the system; in addition a request was added for digital CUNY to expand online learning offerings.
- Projects to meet energy conservation and performance objectives, including State Executive Order 88 and Local Law 87.
- New construction of space needed for academic programs. Highest priority is assigned to classroom and instructional laboratory facilities and to the replacement of temporary or leased space with permanent facilities.

For city Fiscal Year 2019, the University also is requesting $93 million in discretionary funding (Reso-A funding) from the New York City Council and borough presidents to address smaller-scale projects.
**Connected CUNY:**
**Affordable Access, Academic Excellence and Student Success in the 21st Century**

“CUNY has for generations been a beacon of hope and a remarkable engine of mobility for New York, and our framework will reenergize our vital mission by significantly increasing our accessibility, raising graduation rates and enhancing the prospects for career success so that all New Yorkers will enjoy the same opportunities.” — Chancellor James B. Milliken

The University’s capital program supports its strategic framework known as Connected CUNY by providing and maintaining essential facilities and infrastructure for learning and working. Components of the framework are as follows:

1. **Access and Completion**
   To keep pace with the rapid changes of a knowledge-based economy, CUNY will ensure that more New Yorkers are able to attend college and earn degrees. Projects from this request that support this goal include Brooklyn College’s Ingersoll Hall Upgrades (primarily science instructional labs) and Bronx Community College’s Nichols Hall Infrastructure Upgrades. Nichols Hall is the ASAP (Accelerated Study in Associate Programs) administrative center on campus.

2. **College Readiness**
   CUNY will work with its partners to help ensure that a larger number of entering students are prepared, starting with early education and assisting them up to and through high school. These activities, including CUNY Start and MathStart, utilize classrooms in college facilities, bringing future students on to the campuses and maximizing room utilisations. Space upgrades, particularly at the community colleges, support these efforts.

3. **Career Success**
   CUNY will be an engine of economic development, connecting with workplace partners to ensure that students are prepared for successful careers and leadership in the knowledge-based economy. A project from the five-year plan that supports this is the new Hostos Community College Allied Health and Sciences Building, which will offer expanded programs in dental hygiene, radiologic technology and nursing, and house a dental clinic that will provide students with practical experience.

4. **Knowledge Creation and Innovative Research**
   CUNY will invest in and support its faculty’s knowledge creation, research, creative activities and innovation as engaged scholars, teachers and members of the community. College of Staten Island’s new High Performance Computational Center Building supports this strategic goal.

5. **Funding Model / New Economies for CUNY**
   CUNY will effectively leverage the public’s investment by redesigning business processes, using existing space more efficiently and pursuing collaborative efforts to expand our physical reach, and re-engineering development operations, while ensuring the university’s financial operations are sound, transparent and accountable. Baruch College and John Jay College’s Library Modernization projects support this strategy.

This budget request includes projects that support all aspects of the framework. A percentage breakdown of the $6.7 billion capital request by strategic framework component is as follows:
Connected CUNY: percentage breakdown of capital request by framework component

63%
Access and Completion/College Readiness

10%
Funding Model/New Economies for CUNY

13%
Faculty Recruitment/Academic and Research Programs

14%
Career Success
Highlights of the Capital Plan

The University’s primary facilities needs for the five years can be grouped into the following categories: critical maintenance to address life safety and facility preservation; critical maintenance to address modernization of facilities to current academic standards; and strategic initiatives.

Investment in Existing Facilities: Critical-Maintenance Projects

CUNY’s state-of-good-repair program aims to undertake the work necessary to keep buildings open and infrastructure operating in support of the educational mission; without fully operational facilities, students and faculty cannot do their best work. Critical-maintenance funding need refers to:

- Projects that extend the life of CUNY facilities and provide life/safety enhancements (upgrades to physical plant, code compliance, energy conservation, etc.)
- Projects that support academic programs and enhance the University’s mission by upgrading academic and/or programmed spaces such as classrooms, science labs, libraries, athletic spaces, theater and performing spaces, student and multipurpose spaces, etc.

A large portion of CUNY’s 28 million square feet of space is at least half a century old. Frequently, facility conditions dictate the need for projects that combine these two types of critical-maintenance projects: upgrade of entire building systems or campus-wide infrastructure, including heating and cooling distribution, electrical, ventilation, plumbing and building envelopes, followed by modernization of internal instruction and support space to current standards. Some of these examples are listed below, in addition to hundreds of other, smaller critical-maintenance projects that need attention.

- **Field Building**
  Baruch College

- **Marshak Building**
  The City College of New York

- **Voorhees Hall**
  New York City College of Technology

- At Baruch College, the Lawrence and Eris Field Building at 17 Lexington Avenue has been used continuously as an educational center with minimal upgrades since 1928. The 284,000-square-foot facility will be renovated in phases, due to the need to maintain occupancy. The initial phase of construction is underway.

- At New York City College of Technology, $45 million is requested to continue infrastructure and programmed space upgrades to Voorhees Hall. The 218,000-square-foot facility dates from 1920. Projects include renovation of the third-floor instructional space, upgrades to mechanical systems, and eventual renovation/reorganization of the remaining floors.
- At The City College, funding is requested to continue the renovations to the 621,000-square-foot Marshak Building that houses science and athletic facilities. This ongoing project will provide structural and mechanical repairs and space reorganization; $100 million is requested to reorganize space vacated by researchers moving into new science facilities on the south campus.

- At the 30-building Bronx Community College campus, funding is requested to continue critical campus-wide state-of-good-repair work in including fire alarms, roofs, window replacement and critical utility upgrades.

**Strategic Initiative Projects**

Strategic initiatives are new building projects in design that originated from CUNY-approved master plans and that address space deficits on campus.

**Brooklyn College / Roosevelt Hall Science Complex.**
Brooklyn College’s science facilities are in the worn and dated Ingersoll Hall, whose spaces are functionally obsolete for modern science instruction and research. This project will demolish Roosevelt Hall and construct a 180,000-square-foot science facility with high-tech instructional laboratories, general-purpose classrooms and support spaces. The new facility will support the college’s academic goal of transitioning to an interdisciplinary teaching model. Design development phase has been completed. Architect: Mitchell|Giurgola Architects

**Hunter Science and Health Building.** The college’s science programs, partially located at its Brookdale campus on East 25th Street, will be moved to a new building on East 68th Street. In a public-private partnership with Memorial Sloan Kettering Cancer Center, more than 1 million square feet are being developed on East 74th Street. Hunter will occupy 390,000 square feet in a building that will support its health professions programs, including nursing and physical therapy; and provide research labs for its chemistry, biology, psychology and physics departments. Architect: Ennead Architects and Perkins Eastman.

**Medgar Evers College / Academic Success Center.** This project will create a 130,000-square-foot mixed-use facility on the planned Academic Building II site. The facility will include instructional space and labs, offices, a home for the new School of Education and the School of Professional Development, and student support spaces that will improve student retention and graduation rates. The new building will allow the college to grow by approximately 1,400 degree-seeking students as well as support the governor’s Vital Brooklyn initiative.
College of Staten Island / High-Performance Computational Center. This project will construct a 175,000-square-foot facility to house a high-performance computer that will serve as a University resource for computer-based modeling and simulation. The new facility will contain spaces dedicated to state-of-the-art scientific computing hardware, labs for visualization, instructional and research labs, classrooms, and dedicated student work areas. Design is ongoing. Architect: HDR.

York College / Academic Village-Conference Center. The new facility will be constructed on the site of the Classroom Building. The 165,000-square-foot facility will become the new home of the School of Business with modern classrooms, computer labs and conference rooms that will be available for use by the community. It also will serve as the student center. The new building will transform the west side of the campus and add a vibrant new presence to the Jamaica, Queens community. Design is ongoing. Architect: Ennead Architects.

Hostos Community College / Allied Health and Sciences Building Complex. The college’s master plan recommends a 170,000-square-foot facility to address space deficits and provide classrooms and science labs. The facility will support the college’s Allied Health programs in dental hygiene, radiologic technology and nursing, and house a dental clinic that will provide students with practical experience and furnish the community with services. The building will house the college’s Natural Science programs that articulate with baccalaureate programs at CUNY senior colleges. Design is ongoing. Architect: Flad Architects.

CUNY Office of Facilities Planning, Construction and Management
Issues Shaping the Capital Program and Selected Program Milestones

In the past several years, CUNY has initiated and completed work at a rapid pace. An additional 2 million gross square feet of renovations and new construction are in planning, design or construction.

Aging facilities
The most significant issue affecting CUNY’s capital program is the age of its facilities. The University’s facilities portfolio consists of 28 million square feet in 300 buildings across 24 campuses. Some of these buildings are more than 100 years old, and a majority of the inventory exceeds 30 years; the average building at CUNY is more than 50 years old.
History of deferred maintenance and the critical-maintenance program

Over the previous two decades, the bulk of capital funding supported programmatic renovations and new facilities with a lesser investment in preservation of the physical plant. The age of CUNY’s facilities and this history of deferred maintenance have increased the need for a state-of-good-repair program to systematically address the University’s capital facility renewal.

The state-of-good-repair program originated from condition assessment surveys that CUNY completed in 2007 with the assistance of the State University Construction Fund. Using a life-cycle model based on current replacement costs, CUNY was provided with the estimate of the funding needed to eliminate its backlog of deferred maintenance, as well as an estimate of the funding needed to replace or reconstruct essential facilities and their components and subsystems as they approach the end of their useful life (renewal costs). Items identified include utilities and related controls, equipment and distribution systems; exterior walls, roofs, doors and windows; electrical equipment, power, wiring and lighting; built-ins for science facilities; campus hardscapes; and interior finishes. The 2007 analysis identified a critical-maintenance funding need of over $4 billion over 10 years.

Since 2008, CUNY has received over $2 billion in critical-maintenance funding. Many projects, including numerous large critical-maintenance projects, have been completed (noted later), and hundreds more are active as a result, including numerous large projects such as City College’s Marshak Building HVAC upgrades, Lehman College’s utilities plant expansion, Queens College’s central chiller plant upgrades and York College’s escalator replacements. Many more projects are in the planning phase.

Allocations to the community colleges and completion of projects have been slower, due to the need to match funding before it can be used. The city must provide its 50% share of funds in the first instance and the state’s 50% match is generally provided in the following state fiscal year budget (approximately nine months later). Over $650 million in critical-maintenance projects at the community colleges have been funded since 2009; as a result several important projects are underway, including the fourth phase of construction of Bronx Community College’s campus-wide utility upgrades, Queensborough Community College’s campus-wide electrical system upgrades, and the replacement of the enormous façade of LaGuardia Community College’s Center 3 Building.

The state-of-good repair survey was updated by the CUNY schools in 2012; the results indicated that system deterioration had increased at a faster rate than the 2007 analysis had anticipated. However, this was offset somewhat by a $700-million reduction in the backlog due to funding provided and CUNY’s efforts to reduce the backlog in the aging and overtaxed system. The 2012 update reported an investment need of $6 billion over the following 10 years to keep pace with the backlog of deferred-maintenance needs.

CUNY is in the process of conducting an updated state-of-good repair survey and lifecycle analysis.

Enrollment trends

CUNY has had a surge in enrollment over the last decade. This Five-Year Capital Plan reflects the need to preserve and upgrade the University’s aging facilities, and in some cases, due to the unprecedented crowding, add space such as the Interdisciplinary High-Performance Computational Center at the
College of Staten Island, the new Academic Success Center at Medgar Evers College, and the Allied Health and Sciences Building Complex at Hostos Community College.

Changing pedagogy, changing facility requirements
More than a decade ago, CUNY set forth a strategy of institutional renewal committed to academic distinction. The University has implemented bold, strategic measures to position itself among the most highly regarded and respected institutions of public higher learning. Today, CUNY is navigating a course of academic achievement and innovation while sustaining its traditional roles and responsibilities. Indeed, CUNY is a leader in defining public higher education for the 21st century. In order to continue this momentum, the University must provide modern classrooms and laboratories. Appropriate facilities are an imperative element in supporting the development of new approaches to student learning, building collaborative research models, and creatively partnering with the city’s communities. Flexible spaces with appropriate furnishings and state-of-the-art technology provide students with greater opportunities to learn and prepare to join the city’s workforce.

CUNY’s libraries, like libraries across the country and the world, are in a moment of transition—technology is having a tremendous impact as more and more text is available digitally. The layout of libraries is shifting away from stack areas to information commons and small study rooms. Furthermore, as pedagogy adapts to better prepare students with critical-thinking and problem-solving skills, CUNY students are spending more time collaborating on campus in the college libraries. Additionally, the advent of dormitories at some of the senior colleges has affected campus life. These trends are transforming CUNY campuses from commuter campuses that close at night to 24-hour facilities.

CUNY 2020 Challenge Grant Program
In 2013, the governor enacted the CUNY 2020 Challenge Grant Program that expanded a statewide strategy of utilizing higher-education institutions for long-term economic development initiatives; CUNY’s inclusion in the program is recognition that the University is a catalyst for economic revitalization in New York City and New York State. The $55 million in capital funds provided annually for five years will support programmatic needs and provide academically aligned, sustainable long-term economic development affecting students and the surrounding community.

Major completed projects since 2011

2011
- Bronx Community College: Early Childhood Center, April 2011. Added 13,000 square feet.
- Stella and Charles Guttman Community College, July 2011. The first new community college in New York City in four decades opened in a 74,000-square-foot leased space in Manhattan.
- New York Simulation Center for the Health Sciences, August 2011. Added a 25,000-square-foot training facility for first responders, health-care students and professionals (project was a joint venture between CUNY and NYU Langone Medical Center).
- Graduate Center apartments, August 2011. Added 77 apartments for graduate students, postdoctoral fellows and faculty members (project was a public-private partnership with a developer).
2012
- Hunter College: Silberman School of Social Work and CUNY School of Public Health, September 2011. Added 147,000 square feet (project was part of a public-private partnership with a developer).

2012
- City College: Marshak Science Building façade replacement, April 2012. Replaced reinforced concrete façade with a glass curtain wall on this 621,000-square-foot facility.
- Queens College: Kupferberg Center for the Arts complex, April 2012. Project provided upgrades to the complex containing three performing arts facilities and a museum.
- CUNY School of Law Building, June 2012. Added a 260,000-square-foot condominium in a new location in Long Island City, Queens.
- Bronx Community College: North Hall and Library Building, August 2012. Added a 100,000-square-foot new classroom and library facility.
- Borough of Manhattan Community College: Fiterman Hall replacement, August 2012. Added a 390,000-square-foot, mixed-use facility to replace the one irreparably damaged on 9/11.

2013
- LaGuardia Community College: New admissions/bursar offices, January 2013. Renovated 24,000 square feet to provide new and expanded student-service facilities for the college.
- Bronx Community College: Phase I/II of campus-wide utility upgrades, April 2013.
- New York City College of Technology: Voorhees Hall Façade Replacement, May 2013. Replaced the aging masonry façade with a new glass curtain wall.
- College of Staten Island: Dolphin Cove Residence Halls, August 2013. Added a 450-bed student housing facility (project was completed by means of a private developer agreement).
- Lehman College: Child Care Center, September 2013. Added a 13,000-square-foot new facility.
- CUNY School of Professional Studies, September 2013. Opened a new 76,000-square-foot leased facility in Manhattan.

2014
- Hunter College: Added a 37,000-square-foot science research floor in the new Belfer Research Building (public-private partnership with Weill Cornell Medical College), November 2014.
- Medgar Evers College: Bedford Library Expansion, December 2014. Upgraded and reorganized 46,000 square feet of space, including a 12,000-square-foot addition.

2015
- City College: CUNY Advanced Science Research Center and City College Center for Discovery and Innovation, June 2015. Completed the combined 400,000-square-foot science research complex; the two facilities are separate entities with shared core science facilities and amenities.
- Bronx Community College: Phase III of campus-wide utility upgrades, December 2015.
Brooklyn College: Feirstein Graduate School of Cinema at Steiner Studios, September 2015. Opened a 70,000-square-foot new facility for graduate film studies within a working film lot in Brooklyn Navy Yard.

Queensborough Community College: Central Cafeteria/Kitchen Phase I, July 2016. Created a new campus dining facility by enclosing an unused courtyard with a transparent roof.

Graduate School of Public Health and Health Policy, Phase II Expansion, September 2016. Added 29,000 square feet of leased space at West 125th Street campus.

John Jay College: Haaren Hall backfill, September 2016. Renovated/backfilled and provided mechanical systems upgrades to this 383,000-square-foot building.

Queens College: NSB Building Science Lab Ventilation, September 2016. Replaced the HVAC equipment in this 263,000-square-foot, primarily science building.

Bronx Community College: Campus Quad, September 2016.

LaGuardia Community College: Library Expansion, May 2017. Expansion of ground-floor library into second floor, adding 12,000 square feet.

Bronx Community College: Pool Facility Upgrades, July 2017. Renovation allowed re-opening of campus swimming pool facility that had been out of service since 2008.

Hostos Community College: 500 Grand Concourse Building, August 2017. Renovation of 18,000-square-foot fourth floor.

College of Staten Island: St. George campus opening, August 2017. Added 16,000 square feet of leased space for satellite campus in north Staten Island.

Lehman College: Utilities Plant Expansion, October 2017. Major upgrade of campus central plant including boiler/chiller replacement and expansion of electrical service capacity.

Major construction projects ongoing


LaGuardia Community College: Center 3 Building Façade Replacement. Anticipated completion fall 2018.

Baruch College: Renovation of the Lawrence and Eris Field Building at 17 Lexington Avenue. Anticipated completion of Phase 1A: 2020.
Other milestones of the capital program

Economic impact and Minority and Women Business Enterprises (MWBEs)
CUNY spends over $300 million each year on construction in New York City, supporting nearly 3,000 jobs in the city annually. Since the beginning of Governor Andrew M. Cuomo’s Minority and Women Business Enterprises (MWBEs) Initiative six years ago, over $125 million spent on the CUNY Capital Program by the City University Construction Fund (CUCF) has gone to New York State-certified MWBE firms through construction and design contracts directly managed by the CUNY Office of Facilities Planning, Construction and Management. This accounts for an average of over 25% of the total reportable spending of about $490 million during that six-year period. This long-term performance is the result of building contractual relationships at multiple tiers, including prime contractors, with a large number of MWBEs, and CUNY is always looking to expand this network. The capstone to CUNY’s extensive and ongoing outreach efforts in 2017 was the annual MWBE conference sponsored by CUNY and CUCF that attracted over 650 vendors.

Public-private initiatives
CUNY Office of Facilities Planning, Construction and Management endeavors to finance and develop new facilities for the University by monetizing CUNY’s real estate assets, creating revenue-supported projects and using the efficiencies of the private sector. In recent years, a number of academic buildings, student residences, consultant studies and special projects have been completed toward this goal. They include the Silberman School of Social Work at Hunter College and CUNY School of Public Health; one floor of Weill Cornell’s Belfer Research Building for Hunter College; residence halls at City College, Queens College, the College of Staten Island, and for The Graduate Center; and special projects, including the rezoning of a Brooklyn College parcel. Recent efforts included the initiation of CUNY’s Startup-NY program and a University student-housing expansion study.

Physical master plans
Updates were completed for York College and Brooklyn College in 2011, Hostos Community College in 2012, and John Jay College (space-needs analysis study) and Baruch College (library master plan) in 2016. Master Plan updates are under way for Borough of Manhattan Community College and Medgar Evers College. Master plans are discussed in greater detail in the section below.

Basis of the capital program
The objective of the capital program is to support the mission of CUNY, as articulated in the University’s Master Plan, by providing facilities that serve the University’s approved educational programs. The projects requested originate from approved college master plans and from ongoing condition assessments and are prioritized in the campus sections that follow. Funding is requested for projects of appropriate quantity and quality, with environments conducive to learning and consistent
with the mandates of New York State education law and CUNY policies. The Five-Year Capital Plan for FY 2018-19 through FY 2022-23 is based on the following guidelines:

1. **Critical maintenance and returning campuses to a state of good repair**
   Discussed in Issues Shaping the Capital Program.

2. **Approved academic master plan**
   CUNY’s Academic Master Plan for 2016-20 reflects CUNY’s commitment to expanding its portals of opportunity and access; raising success rates, setting the standard for academic quality in the urban university, and operating efficiently in the service of its academic mission.

   CUNY colleges are required by the Board of Trustees to conform to the Academic Master Plan in developing their curricula and degree programs. When requesting capital projects, the University’s annual Capital Budget Request and the Five-Year Capital Plan reflect the policies in the Academic Master Plan.

   This year’s Capital Plan responds to the Academic Master Plan by continuing previous years’ emphasis on the remodeling and renovation of facilities so they can more effectively serve academic programs. In addition, it proposes new construction that is called for by campus master plans, by new University initiatives or by the changing needs of its constituencies.

3. **Approved physical master plans**
   Along with the Academic Master Plan, each campus has a trustee-approved physical master plan, developed by appropriate planning professionals in consultation with the campus facilities staff and members of the college community. Updated in 10-year cycles or as needed, these plans are the basis for the Five-Year Capital Plan Request. The physical master plans detail existing and anticipated facilities necessary to accommodate a University-approved enrollment projection for a given target date. Physical master plans are prepared and updated regularly or as warranted by changing conditions. In developing or amending physical master plans, the campuses and Central Office consider the cost and functions of proposed projects as well as the opportunities they present for fostering mutually beneficial relationships with neighboring communities.

4. **Cost estimates/schedules**
   Original cost estimates for the request are developed through feasibility studies or by applying comparable cost data after defining a project’s scope and square footage. Project costs for future years are escalated using rates based on current market conditions. Escalation is calculated from project schedules, which can be met only if funding is received. If appropriations are delayed, completion dates and costs are adjusted accordingly.
5. Implementation of energy efficiency goals
CUNY’s capital program and initiatives contained in this Five-Year Capital Budget Request reflect the University’s commitment to green technology and energy efficiency. New CUNY buildings will be a minimum of LEED-certified Silver or have green elements as part of their design and construction.

CUNY’s capital program is guided by the following state and city initiatives:

*Executive Order 88 and BuildSmart NY*
CUNY participates in the BuildSmart NY Program that was initiated by the governor’s Executive Order 88 requiring state entities to collectively reduce average energy use in state-owned and managed buildings by at least 20 percent by April 2020. The program is an extension of the governor’s NY Works initiative aimed at developing a strategic, comprehensive and coordinated capital planning process across the state. Agencies, including CUNY, have been provided with specific energy use reduction targets for the 2020 deadline. CUNY’s targets apply to the senior colleges.

*City’s “One City: Built to Last” Initiative and Local Laws 84, 86, 87 and 26*
CUNY community colleges are participants in the mayor’s “One City: Built to Last” program (formerly PlaNYC) that mandates a reduction in carbon emissions of 80 percent by 2050. It is a city-wide environmental action plan to move toward a more sustainable future with regard to land, water, air, transportation, and in particular, energy and climate-change metrics. To satisfy program requirements and comply with Local Laws 84, 86, 87 and EO26 which commits NYC to the goals of the Paris Climate Accord, CUNY has established an Energy Assessment Program wherein campus buildings and operating systems are being assessed to summarize existing conditions and identify greenhouse gas emission reduction opportunities.

Going forward, CUNY has established a plan of energy conservation measures targeted to achieve the One City: Built to Last and Executive Order 88 goals. This includes routine replacement of fluorescent lamps with high-efficiency fluorescent tubes and replacement of academic space lighting with LED technology; the upgrading, renewal and/or expansion of digital control systems and migration from pneumatic systems; retro-commissioning of CUNY buildings; and installation of real-time metering systems and building sub-metering.