

Case 14-G-0201

Final Report

Consolidated Edison Company of New York, Inc.

June 30, 2022

Consolidated Edison Company of New York, Inc. (“Con Edison” or the “Company”) hereby submits its Final East Harlem Settlement Report.

I. Background

Following the East Harlem incident, Con Edison entered into a settlement agreement with the Department of Public Service (“DPS”) that required the Company to spend approximately \$25 million for the benefit of gas customers.¹ The Commission approved the settlement agreement and authorized Con Edison to spend the settlement funds as follows: \$8.3 million for firefighter equipment and training; \$11.8 million for East Harlem infrastructure improvements; \$2.4 million for gas safety education; \$2 million for residential methane detectors; and \$1 million for automated metering infrastructure-enabled natural gas detectors totaling \$25.5 million dollars (“Funding Order”).² Ordering Clause 9 of the Funding Order required Con Edison to file a final report within 60 days of depletion of the settlement funds.³ As of April 30, 2022, Con Edison depleted the settlement funds, and this report demonstrates that Con Edison has finished meeting the Funding Order’s items, which advance gas safety.

¹ Case 14-G-0201 - In the Matter of the Investigation Relating to the Explosion and Collapse of the Buildings at 1644 and 1646 Park Avenue, New York, New York in the Service Territory of Consolidated Edison Company of New York, Inc. on March 12, 2014, *Order Approving Settlement Agreement*, (Issued and Effective February 16, 2017). The Settlement required Con Edison to create an account with \$25,052,000 for these programs.

² Case 14-G-0201 - In the Matter of the Investigation Relating to the Explosion and Collapse of the Buildings at 1644 and 1646 Park Avenue, New York, New York in the Service Territory of Consolidated Edison Company of New York, Inc. on March 12, 2014, *Order Approving Proposed Use Of Settlement Funds With Modifications*, (Issued and Effective July 12, 2018) (“Funding Order”) Ordering Clause 4.

³ *Id.* Ordering Clause 9. Ordering. Note, Ordering Clause 6 required Con Edison to report each year until all settlement funds were spent, to the Department of Public Service’s Chief of Pipeline Safety, on the use of funds and the success or completion of programs on July 1 of each year. This report serves as the Final Report.

The table below summarizes the status of the funding.⁴

Program	Status	Original Funding	Spend (YTD)	Balance
Residential Methane Detectors	Complete	\$2M	\$1.815M	\$185K
Sectionalizing Valves	Complete	\$1.5M	\$1.118M	\$382K
Westchester Gas Equipment and Training Facility Funding	Complete	\$1.36M	\$1.53M	(\$170K)
Rehabilitating Mains	Complete	\$3.3M	\$3.508M	(\$208K)
Education Programs - CUNY & Coop Tech Funding	Complete	\$2.4M	\$2.4M	\$0
FDNY Equipment and Training Funding	Complete	\$6.94M	\$6.94M	\$0
Replacing of Mains (non-MRP)	Complete	\$7M	\$7.503M	(\$503K)
Automated Meter Infrastructure Enabled Natural Gas Detectors (NGDs)	Complete	\$1M	\$792K	(\$208K)
Accrued Interest ⁵		\$1.578M	\$553K	\$1.025M
Subtotal for Initially Ordered Programs		\$26,630,142	\$25,605,092	\$1,025,050
Emergency Main Stop-Off System (EMSOS) ⁶		\$0	\$1,025,050	\$0
Total Balance for all EH-funded programs				\$0

⁴ All numbers are as of April 30, 2022.

⁵ The total interest accrued on the original \$25,052,000 was \$1,578,142 million, as of April 30, 2022. However, \$448,000 of this interest was included in the Funding Order's original project funding for an initial program funding of \$25.5 million, and an additional \$105,092 of the accrued interest was spent and is embedded in the various program costs above for a total interest spend of ~\$553K, leaving a remaining unassigned interest balance of \$1.025 million, which monies have been spent, as further described in Section VIII of this Report.

⁶ See Section VIII of this Report for more information.

II. Fire Department Leak Detection Equipment and Training Funding

The Funding Order required the Company to divide the \$8.3 million for firefighter training and equipment between the New York City Fire Department (“FDNY”) and fire departments in Westchester County (“Westchester Fire Departments”).⁷ In consultation with DPS Staff, the Company allocated \$6,940,130 to the FDNY and \$1,359,870 to the Westchester Fire Departments.⁸

A. FDNY

The Funding Order authorized FDNY funding for 130 remote methane leakage detectors, 15 aerators,⁹ and natural gas incident response training. On December 7, 2018, Con Edison and the FDNY executed an agreement governing the use of the settlement funds, and Con Edison presented the FDNY with a check for \$3,470,065, one half of the budgeted amount, for remote methane leakage detectors, aerators and training. The FDNY requested its remaining settlement funds of \$3,470,065 in December 2020. After reviewing the FDNY’s initial spending and progress to determine that it satisfied the requirements in the executed agreement, Con Edison issued the remaining funds on March 17, 2021.

Between April 2, 2019, and February 6, 2020, the FDNY trained approximately 36 percent of its firefighters¹⁰ at its new gas response facility on Randall’s Island. After February 6,

⁷ There are 52 individual fire departments in Westchester County, which include 40 volunteer fire departments and 12 “career” fire departments.

⁸ On November 1, 2018, the Secretary granted Con Edison an extension of the Funding Requirements with respect to the fire department training and equipment programs until December 7, 2018. On December 6, 2018, the Secretary granted Con Edison an extension of the Funding Requirements with respect to the Westchester fire departments training and equipment programs until March 1, 2019. The Secretary subsequently granted extensions of this deadline until August 1, 2019.

⁹ FDNY later requested to purchase an additional 13 aerators, for a total of 28 aerators. DPS Staff granted this request.

¹⁰ As of February 6, 2020, the FDNY had trained 3,933 firefighters out of an active population of 10,931.

2020, the FDNY paused all in-person training due to COVID-19. FDNY requested to use settlement funds to purchase video production tools and equipment, and a classroom trailer to create a four-hour interactive digital training course that would begin in September 2020 and be accessible remotely through its Learning Management System. After consultation with DPS Staff, Con Edison approved the request. As of the August 2020, FDNY completed all four one-hour virtual modules.¹¹ As of April 30, 2022, FDNY has trained approximately 58 percent of its members.¹² In addition, FDNY has spent or allocated approximately 77% of funds (see table below) and plans to use the remaining funds for training additional firefighters.¹³

Total FDNY Budget	\$6,940,130
130 Remote Methane Leakage Detectors (RMDLs (purchased)	(\$1,283,750)
28 Aerators (purchased)	(\$89,880)
Video Production Tools, Equipment and Virtual Classroom Trailer (purchased)	(\$208,242)
RMDL (10 year Repair Budget)	(\$500,130) ¹⁴
Aerator (10 year Repair Budget)	(\$25,000)
Completed Training	(\$3,266,950)
Total Spent/Allocated	(\$5,373,952)
Current Balance	\$1,566,178

¹¹ Module 1: Introduction, Properties of Natural Gas, Infrastructure & Gas Shut Off Procedures; Module 2: Size-Up, Rig Positioning, Routine Gas Emergencies in a Dwelling & Routine Gas Emergencies in a Street; Module 3: Ventilation Procedures, Power Removal & Metering; and Module 4: Major Gas Emergencies, Rapid Evacuation Techniques & Gas Explosions.

¹² As of April 30, 2022, the FDNY has trained 6,143 firefighters out of 10,536. (current active population).

¹³ FDNY plans to train ~ 400 firefighters per month (~3,200) from May-Dec 2022, to bring the total trained population to ~9,400 firefighters trained or 90% of by year-end.

¹⁴ \$35,506 have been used through April 30, 2022.

B. Westchester County Status

The Funding Order directed Con Edison to work with DPS Staff and the Westchester County Department of Emergency Services to determine the equipment and training budget for the Westchester Fire Departments. The Westchester Fire Departments requested Sensit, QRAE gas monitoring equipment and associated accessories and testing equipment, in addition to the remote methane leakage detectors (“RMLDs”) and aerators specified in the Funding Order. The Commission approved their request on March 15, 2019,¹⁵ and Con Edison ordered the equipment on March 18, 2019.

On March 25, 2019, Con Edison distributed the RMLDs and aerators to the City of Yonkers Fire Department HazMat Team and the Westchester County Department of Emergency Services HazMat Team.

In May 2019, the Westchester Fire Departments requested additional Sensit HGX-2D, QRAE 3, and MultiRae meters.¹⁶ After discussions with DPS Staff, the Company proceeded with the purchase of the additional equipment.

In June 2019, Con Edison distributed the equipment approved in the March 15 Order and conducted training. In August 2019, the Company distributed the additional requested equipment. In September 2019, in a collaboration between the County and Con Edison, the County completed construction of the Westchester County Department of Emergency Services Natural Gas Training Facility. This facility provides first responders from different disciplines

¹⁵ Case 14-G-0201 - In the Matter of the Investigation Relating to the Explosion and Collapse of the Buildings at 1644 and 1646 Park Avenue, New York, New York in the Service Territory of Consolidated Edison Company of New York, Inc. on March 12, 2014, *Order Authorizing Change* (Issued and Effective March 15, 2019)

¹⁶ Westchester indicated that they needed additional units for a number of reasons, including spare units, an increase in the number of fire fighters trained in the use of the units, and under-estimating the number of units they needed when they made their initial request.

access to information, tools, and techniques on how to effectively, and efficiently, address hazardous situations involving natural gas.

In total, the equipment and construction costs for Westchester County exceeded Westchester's initial allocation by about \$170,000.¹⁷ Con Edison worked with DPS Staff to allocate some of the unspent funds from other programs or interest to cover these additional expenses.

III. Residential Methane Detector Distribution

The Funding Order directed Con Edison to purchase residential methane detectors for East Harlem residents, survey the residents on their use and, for three years, track gas leaks detected by the residential methane detectors provided to residents, and submit an annual report to DPS's Chief of Pipeline Safety.

The Company purchased and distributed an in-apartment residential methane detector (similar in look and size to a residential smoke detector) to every residential gas customer located in East Harlem (10,564 customers), within the geographic boundaries of Community Board 11. The Company mailed the residential methane detectors in two batches, and in both cases, followed up with a survey approximately two weeks later. The Company first sent detectors to residents who had authorized the Company to contact them by email. The Company sent these residents an email survey on June 11, 2019. The Company then sent detectors to the remainder of the residents and mailed them a survey on June 24, 2019. The Table below summarizes the survey and customer responses.¹⁸

¹⁷ The total funding required for the request equipment and construction of the facility for Westchester County was \$1,529,293.85, \$169,423.85 above the original funding allocation of \$1,359,870.

¹⁸ The Company contacted any customer who indicated that he or she did not receive a residential methane detector in the survey. The Company either confirmed receipt or sent a new detector, with signature required at delivery. In

Surveys Emailed (June 11, 2019)	5,807	Surveys Mailed (June 24, 2019)	4,757
Responded	381	Responded	306
Did Not Respond	5,426	Did Not Respond	4,451
Response Rate	6.56%	Response Rate	6.43%
Currently Using Gas Detector		Currently Using Gas Detector	
Responded "Yes"	275	Responded "Yes"	248
Responded "No"	106	Responded "No"	58
106 Customer-Selected/Stated Reason for Not Using		58 Customer-Selected/Stated Reason for Not Using	
Haven't opened package	31	Other *(19 one-off reasons provided)	19
Did not receive it	21	Haven't opened package	16
Other* (20 one-off reasons provided)	20	Haven't installed batteries	13
Haven't installed batteries	15	Did not receive it	13
Didn't understand instruction manual	10	Didn't understand instruction manual	5
Didn't have a good spot to install	8	Unit not working	3
Unit not working	1	Didn't have a good spot to install	2
Total "No" responses	106	Total "No" responses (some customers selected 2+ responses)	71

As per the Funding Order, on March 31 of 2019, 2020 and 2021 Con Edison reported to the DPS's Chief of Pipeline Safety on the number of gas leaks reported at the locations where residents were provided residential methane detectors.

The Company spent \$1.815 million of the \$2 million approved for the residential methane detector program. As discussed in detail below, the Company worked with DPS Staff to develop a recommendation on how to spend the remaining \$185,000.

The Funding Order also required Con Edison to use \$1 million for the purchase and installation of automated metering infrastructure enabled natural gas detectors ("AMI enabled NGDs")¹⁹ once the devices were shown to be effective and beneficial. In the fourth quarter of

addition, the manufacturer of the residential methane detector has provided 24/7 call center coverage and provided Con Edison a monthly report on any customer inquiries. From May 2019 through April 30, 2022, there have been a total of ten Con Edison customer inquiries to the manufacturer: 5 in 2019, 1 in 2020, 4 in 2021 and none in 2022. 6 of 10 calls were general inquiries in nature (e.g., installation, activation, etc.) and closed-out by the manufacturer. 4 calls were referred to the Company and closed-out by the Company.

¹⁹ The AMI-enabled Natural Gas Detector (NGD) is a safety device that monitors the air in your basement, typically in the area where the gas service pipe or other utilities enter your home or building. The Natural Gas Detector will sound an alarm if levels of natural gas in that area indicate a potential leak and will send an automatic alert to Con Edison's Gas Emergency Response Center (GERC) for follow-up.

2018, the Company began to deploy and monitor 9,000 automated meter infrastructure enabled natural gas detectors as part of a pilot program. The Company completed the pilot program in December 2019, with a total of 9,067 units installed. In June 2020, the Company ordered 2,800 automated meter infrastructure enabled natural gas detectors for East Harlem. The Company experienced delays in installing these AMI enabled NGDs due to the COVID-19 pandemic. Because installation requires access to customer buildings, the Company suspended the program during the height of the COVID-19 pandemic, consistent with New York State directives. As of May 30, 2022, Con Edison had obtained access to approximately 1,700 East Harlem buildings and installed AMI enabled NGDs. As the Company has an ongoing multi-year program to install additional AMI enabled NGDs throughout its service territory, the Company will attempt to gain access to install the remaining AMI enabled NGDs .

The Company spent \$792,000 of the \$1 million approved for the residential methane detector program. As discussed in detail below, the Company worked with DPS Staff to develop a recommendation on how to spend the remaining \$208,000.

IV. East Harlem Infrastructure Improvements

The Funding Order required Con Edison to spend \$11.8 million on infrastructure improvements that include: (1) spend \$1.5 million to add sectionalizing valves at New York City Housing Authority (“NYCHA”) facilities in the East Harlem area; (2) spend \$3.3 million to rehabilitating large diameter²⁰ cast iron gas mains in East Harlem; and (3) spending \$7 million to replace other large diameter cast iron mains in East Harlem.

²⁰ Large diameter gas main is gas main that is greater than 12 inches in diameter.

A. NYCHA Sectionalizing Valves

The Company satisfied its requirement to install sectionalizing valves²¹ at NYCHA facilities in East Harlem. The Company installed two sectionalizing valves in 2018 and 17 sectionalizing valves between November 2019 through January 2020.²² The Company spent \$1.118 million of the \$1.5 million approved for this program. As discussed below, the Company worked with DPS Staff to develop a recommendation on how to spend the remaining \$382,000.

B. Rehabilitation of Cast Iron Mains

Con Edison satisfied its requirement to rehabilitate cast iron mains. Using the Cast Iron Sealing Robot (“CISBOT”)²³ technology, the Company rehabilitated more than 4,600²⁴ feet of 16-inch or larger cast iron mains in East Harlem at a cost of \$3.5 million,²⁵ slightly over the \$3.3 million Funding Order allocation for this program. Con Edison worked with DPS Staff to

²¹ Sectionalizing Valves are distribution pressure valves designed to reduce the time to shut down a section of the distribution system in an emergency.

²² Con Edison originally proposed, and the Funding Order approved, 18 sectionalizing valves. Due to a field condition, Con Edison determined it would be more operationally efficient to install an additional sectionalizing valve. Con Edison installed three 6-inch sectionalizing valves, five 8-inch sectionalizing valves, nine 12-inch sectionalizing valves, and two 20-inch sectionalizing valves.

²³ CISBOT is a cast-iron pipe repair robot that seals the joints in large diameter natural gas pipeline from the inside, this extending their use for up to fifty years without unearthing the joints. CISBOT enter live 16+” diameter cast iron mains through a small opening in the street and travels through the pipe to internally seal up to 110 joints. All work is performed in live mains with no disruptions of gas service to customers and reduces impact to the public and the environment.

²⁴ Con Edison rehabilitated ~2,664 feet of 16-inch cast iron main (222 joints) on 116th Street between Second Avenue and Park Avenue; ~744 feet of 16-inch cast iron main (62 joints) on First Avenue between East 98th Street and East 102nd Street for a total of ~3,400 feet of 16-inch cast iron main (284 joints); ~760 feet of 20-inch cast iron main (63 joints) on Fifth Avenue between East 112th Street and East 115th Street; and ~480 feet of 30-inch cast iron main (40 joints) on Lexington Avenue between West 115th Street and West 120th Street.

²⁵ The overage was due to completing the rehabilitation of a long section of main, instead of having a portion of main that would need to be replaced, which would have been more costly and more disruptive to East Harlem residents.

allocate some of the unspent funds from other programs or interest to cover these additional expenses.

C. Replacement of Cast Iron Main

Following the CISBOT inspections and rehabilitation of mains, the Company commenced the East Harlem main replacement program in November 2019, and, as of March 2022, completed six main replacement projects, replaced existing large diameter cast iron main and installed 979²⁶ feet of 16” or greater protected steel main at a cost of \$7.503 million, \$503K above the initial \$7 million dollar allocation. Con Edison worked with DPS Staff to allocate some of the unspent funds from other programs or interest to cover these additional expenses.

V. Educational Programs

The Funding Order required Con Edison to provide one half of the \$2.4 million for gas safety education by August 26, 2018. On November 19, 2018,²⁷ Con Edison: (1) finalized funding agreements with the City University of New York (“CUNY”) and the School of Cooperative Technical Education in East Harlem (“Coop Tech”); (2) presented a check to CUNY for \$950,000, which is one half of CUNY’s funding; and (3) presented a check to Coop Tech for \$250,000, which is one half of Coop Tech’s funding. In February 2021, CUNY and Coop Tech requested the second half of their funding. After review of CUNYs and Coop Tech’s

²⁶ At the intersection of E. 116th & 5th Ave, the Company installed 184 feet of large diameter main (92 feet of 16” and 92 feet of 20”). At the intersection of E. 116th Street and Lexington Avenue, the Company installed 165 feet of 16” main. At the intersection of E. 116th & 3rd Ave, the Company installed 233 feet of 16” main. At the intersection of E. 116th & Madison Ave, the Company installed 142 feet of 16” main. At the intersection of E. 116th & Park Ave, the Company installed 175 feet of 16” main and on Lenox Avenue (between 113-114), the Company installed 80 feet of 30” main.

²⁷ The Secretary had extended the funding deadline for educational programs to November 19, 2018.

progress using the first half of the funds, Con Edison issued the second half of the funds to CUNY and Coop Tech in March 2021.

A. CUNY

The Funding Order approved \$1.9 million for three CUNY programs: \$1 million for educating building superintendents; \$0.5 million for gas safety education for elementary and high school-aged youth; and \$0.4 million for a behavioral study to better understand factors that motivate children and adults to call 911 or Con Edison when they smell gas.

i. CUNY Gas Safety Training Program for Building Superintendents

In early 2019, Con Edison worked with CUNY and its consultants to develop gas safety educational training for CUNY's Superintendent/Building Operator program which was completed in June 2019.²⁸ From July 2019 to March 2020, CUNY delivered the three-hour Gas Safety training module 36 times to a total of 513 students. Three classes (totaling 45 anticipated students) were scheduled for Spring 2020 but were postponed due to the COVID-19 Pandemic.

In the Spring and Summer 2020, due to the COVID-19 Pandemic, CUNY transitioned to a virtual learning approach. They contacted building owners to assess their staff's ability to access and effectively use virtual training, evaluated the available virtual platforms, and became proficient in training via a virtual format. In Fall 2020, CUNY produced an instructional video to replace role-play exercises in the Superintendent/Building Operator curriculum.

²⁸ A free, three-hour Gas Safety Training class for supers, operators, and maintenance staff of all NYC residential buildings. The curriculum covers: gas safety basics, compliance with New York City laws (new in 2016) describing how building staff must respond to potential gas leaks; and preparedness including working with first responders and minimizing impact to the building.

Of three virtual classes scheduled for the end of 2020, one was held with an additional 13 students trained. The other two classes were postponed to early 2021. In 2021, CUNY held 13 classes and trained a total of 243 students.

Through May 2022, CUNY has held five Superintendent/Building Operator classes and trained a total of 95 students averaging 19 students per class. For the remainder of 2022, CUNY plans to schedule one class per month with approximately 18 to 20 students in each class.

ii. CUNY Gas Safety Training Program for Building Owners and Managers

CUNY has created a four-hour training for multifamily building owners and managers that incorporates parts of the Superintendent/Building Operator training and adds topics that speak directly to owners and managers regarding preparedness for the Periodic Inspection process, responding to Warning “Red” tags, and the Service Restoration process following gas shutoffs.²⁹ This course was developed by a CUNY School of Professional Studies instructional designer and a Northeast Gas Association Subject Matter Expert. Subsequently, CUNY contracted with a professional instructional design company to develop the Owner/Manager course, including both asynchronous online and instructor-led portions of the training. Materials developed include a PowerPoint, Facilitator Guide, Participant Manual and three on-line E-Learning modules, which include some custom video segments. After some delays related to staffing challenges, CUNY completed a pilot in late October 2021. This was followed by a course in early December that was offered to a variety of residential organizations and open for

²⁹ Gas service line inspections are required per New York State law, every three years for customers in residential districts, and annually for customers in business districts. During periodic or other inspections, a warning (red) tag may be issued for any hazardous/improper condition. The service restoration process following a shut off includes steps for the building manager and their licensed plumber, New York City Department of Buildings, and Con Edison.

registration using Eventbrite.³⁰ Both the pilot and the first course had a relatively small number of participants, but the people who attended were engaged and interested in the topic.

At this point, the Owner/Manager course is being offered quarterly. To date in 2022, one course was offered in March with 22 participants registering and 10 participants completing all requirements for the course. Another course is scheduled to be delivered in July.

The CUNY Building Performance Lab purchased a learning management system (“LMS”) in 2021 to facilitate delivery of the Owner/Manager course. The LMS provides functionality that includes course registration, deployment of the e-Learning content, and course completion tracking.

For 2022, CUNY plans the following additional items:

- Develop and distribute an electronic Occupant Toolkit for condo and coop boards and real estate owners and managers whose staff have taken at least one of the courses.
- Create professional marketing materials that can be used for flyers, social media posts, and Constant Contact emails to advertise the training courses (Note: the team is in discussion with a vendor to assist in the creation of the Occupant Toolkit/resource kit and design the marketing brochure).
- Conduct post training evaluations to assess outcomes from the training conducted to date.
- Consider expanding the use of the e-Learning used in the Owner/Manager course.
- Research current approval status of law/technology for gas leak detectors and make edits to curriculum if needed; and conduct overall review of course

³⁰ Eventbrite is the online event registration software that CUNY uses to post available workshop and manage registrations.

materials to update photos, charts, or information, including the key findings from the CUNY academic research projects.

The team will continue to evaluate and modify the training as/if needed based on ongoing post-training evaluations; status of pending legislation and other policy changes; and findings from research studies.

iii. K-16 CUNY Gas Safety Education

CUNY designed a mini-unit on natural gas science and safety with a lesson administered during a seventh grade science class. Students learn basic concepts of where natural gas comes from, how it travels to homes and buildings, and what to do if there is a gas leak, as illustrated in Con Edison's "Smell Gas. Act Fast." campaign. At the end of the lesson, students received a Gas Safety Kit and Badge, conferring their membership in the CUNY Con Edison Safety Squad. As Safety Squad members, students are tasked with educating at least five additional community members on the process for addressing a gas leak.

In 2019, CUNY recruited twenty middle schools to pilot this program. CUNY worked with the middle schools to design custom programming for each school (*e.g.*, based on students' academic levels and prior learning). The teachers and students who were part of the pilot program were motivated and actively participated in the class. At the end of the 40-minute class, instructors asked the students to illustrate a gas safety procedure and share that message with at least five family members, friends, or neighbors.

CUNY then held a focus group with its six Gas Safety instructors to gather feedback on how to improve and enhance the program. CUNY learned that schools serving students with disabilities were especially interested in offering the gas safety workshops to their students. CUNY adapted the workshops accordingly.

Based on the success of the pilot, CUNY and Con Edison planned to launch a second year of programming from January 2020 through June 2020 and reach 3,000 students. CUNY hired a program coordinator who was in the process of hiring eight instructors. The instructors' lessons on natural gas and gas safety were to be integrated into the curriculum of middle school science classes. The coordinator had revised and printed the gas safety lesson and student worksheets based on feedback from the 2019 spring pilot. CUNY expected to implement the program in 30-40 schools and, in January 2020, sent the program application to every middle school in New York City.

The second year of programming began January 2020 through March 2020, CUNY conducted seven in-school workshops, reaching 104 students. However, with public school closures due to COVID-19 in March 2020, there was a pause in programming. During this time, CUNY prepared for a transition to a virtual format.

When permitted to resume workshops in January 2021, the team began virtual workshops. There was also a pause in programming that began later that year when the program did not have staffing, from September 2021 through February 2022. Effective March 21, 2022, CUNY hired a Middle School Gas Safety Coordinator. Workshops have resumed once more.

Since the start of the program through June 1, 2022, CUNY has hosted 258 gas safety workshops for 5,199 students.

iv. Office of Research Behavioral Economic Study

The CUNY Office of K-16 Initiatives requested proposals for behavioral research projects that aim to better understand the factors that may or may not prompt community members to contact 911 or Con Edison when they detect a gas leak or gas odor. Con Edison

anticipates that this research will inform and enhance its public outreach, superintendent training curriculum, and other gas safety programs. The awardees are:

Ronak Etemadpour and Michael Grossberg
The City College of New York
Project Title: Visualization and analysis of public reporting of natural gas odor using insights from NYC311
Award amount: \$35,000

This team created a visualization tool/website to calculate the spatial distribution of top complaints. Using NYC 311 calls and socioeconomic data to identify hidden patterns and association among reported incidents, and areas of New York City most prone to not reporting gas leakages. It explored the relationship of gentrification and reporting across racial and socioeconomic factors.

Nicholas Grosskopf
York College
Project Title: Exploring Human Behavioral Responses to Detecting and Reporting Natural Gas Odors in New York City: A Mixed- and Multi-Method, Community Based Study
Award amount: \$35,000

This report is based on five focus groups, and an online survey of 1,044 individuals. The results/findings from this mixed-and multi-method study have implications for the development of education and outreach to consumers of natural gas regarding the prevention and response to a suspected leak. Participants tended to be generally knowledgeable about the risks and warning signs of a natural gas leak, but were not uniform in how they might respond to a suspected leak. Those who were less likely to respond actively expressed greater perceived barriers in responding (e.g., who to call, a negative response should there actually not be a leak) than those who were more likely to respond. Energy providers and local emergency services departments should consider the development of multi-strategic and targeted social marketing/health communication campaigns to reach all consumers. This could include social media approaches,

community-based outreach at in-person cultural events (e.g., fairs), and school-based education (e.g., adding a natural gas leak prevention module to traditional “stop, drop and roll” education around fire prevention).

Charles Jennings
John Jay College
Project Title: Behavioral Sequence Modeling to Examine Reasons Why People Don’t Report Natural Gas Leaks
Award amount: \$27,000

The final paper for this study is based on research surveys sent to New York City households in zip codes with higher reports of natural gas leaks. The survey asked questions surrounding gas leak reporting awareness and challenges. The paper identifies patterns of general knowledge and makes recommendations including expanded education efforts for both building staff and apartment dwellers, and additional research targeting those who have reported gas leaks.

The funded projects were initially expected to run through July 31, 2020, with an option for a six-month extension. All three awardees opted for a six-month extension. Findings from the three projects were finalized in 2021. Con Edison will share the findings from these studies with our corporate communications/outreach and education teams for consideration to include it in future outreach and education efforts around gas safety.

CUNY held multiple discussions with Con Edison and the Northeast Gas Association staff to further understand pertinent issues in the industry and develop its request for applications in the second round. CUNY released a new application request in February 2020, with the hope of funding up to five additional research projects at a similar funding level. Although the application was available to all faculty at CUNY, three departments were specifically targeted for outreach – Hunter College’s Urban Planning Department, Marxe School of Public and

International Affairs at Baruch, and the CUNY Graduate School of Public Health and Health Policy.

Due to delays caused by the pandemic, CUNY instead posted the application in May 2021. On October 29, 2021, three projects were awarded, with the award period running from November 2022 through November 2023.

Dr. Katherine Gregory
City Tech
Project Title: Community Engagement, Intervention Behavior, and the Prevention of Gas Leaks in New York City
Award amount: \$33,104

Dr. Neal Phillip
Bronx Community College
Project Title: Sensitizing NYC to Reporting Methane Gas Leaks Using Monitoring, Collective Social Learning and Thematic Communication Methods
Award Amount: \$35,000

Dr. Don Waisanen
Marxe School of Public and International Affairs
Project Title: Using Social Marketing to Motivate Gas Leak Reporting in New York City
Award Amount: \$35,000

CUNY plans to initiate a third and final request for research applications in/around November 2022, with between three to five grants, of up to \$25,000 funded.

B. Coop Tech

As with CUNY, the Company has been working closely with Coop Tech to develop gas safety programming and monitor and manage the instruction and curriculum.

Starting in Spring semester 2019, Coop Tech offered gas safety modules to the 43 students enrolled in its plumbing program. From September 2019 through February 2020, 51 students received the gas safety training and were trained on equipment that the school purchased with Settlement funds to supplement the curriculum. Like all New York City schools, due to COVID-19, Coop Tech closed its doors in March 2020 and carried on virtual instruction for the

remainder of the Spring 2020 semester. While virtual instruction lacks the hands-on aspect of the student's in-person vocational instruction in gas safety, the teachers worked very closely with the students to keep the learning progressing, and enthusiasm going.

Coop Tech acquired new software from Interplay Learning, the developer of the SkillMill platform. The skilled trades training platform provides digital training simulators, virtual reality, and courses for a number of areas including HVAC, Electrical, Solar, Plumbing, Multi-Family Facility Maintenance, and General Safety. Coop Tech, incorporated SkillMill into the Plumbing course to supplement student learning via remote instruction. The Plumbing section of the SkillMill platform includes units on a number of topics.³¹ As of the time of this report, plumbing students have acquired approximately 900 certifications from the aforementioned units.

The pandemic created an opportunity for the school to make upgrades and improvements to the classroom while students were remote. These included classroom benches, tables, and storage systems. Additional upgrades to plumbing class equipment and consumable materials included the purchase of new safety materials, goggles, gloves and hard hats.

In both 2019 and 2020, Con Edison staff visited the plumbing class during one of the gas safety modules to observe the classes. The students seriously approached the subject matter. In the Spring 2020 semester, the students continued to be engaged and exposed to gas safety instruction, aligned with learning about the use of gas-related equipment in this hands-on/project-based model. Con Edison had planned to restart periodic class visits to see the students' progress with the curriculum and initiative. While the school reopened in March 2021,

³¹ These include: How does Plumbing Work?, Basic Plumbing Tools, Plumbing Materials Overview, Plumbing Fixtures Overview, Plumbing Demolition, Plumbing Fixtures Installation, Caulking and Sealing, Plumbing Code Overview, Introduction to Water Heaters, Electric Water Heater Operation, Gas Water Heater Operation (Includes Gas Safety), Water Heater Maintenance, Plumbing Maintenance (Includes Gas Safety), Fittings and Valves, Hangers and Supports, Electric Water Heater Troubleshooting, Toilet Troubleshooting, Kitchen Sink Troubleshooting, Gas Water Heater Troubleshooting (Includes Gas Safety), Tubular and Fixture Trim, Drains, Water treatment and Well Systems, Plumbing Safety (Includes Gas Safety), Drain Cleaning Overview, Drain Cleaning Procedures.

due to health concerns, the school determined that another site visit by Con Edison would not be advisable for some time and requested Con Edison delay a site visit for the Fall season. The Company, however, was able to view a well-produced video developed by a Coop Tech student using the new Interplay software.

Since the beginning of the partnerships, the Company has shared with the school its expertise, equipment and educational materials. Coop Tech teachers first visited the Con Edison Learning Center in April 2019, and students visited in small groups in May and June 2019. During these visits, Con Edison taught the students about gas infrastructure, materials, safety and best practices. These site visits were scheduled for March and April 2020 but were cancelled after New York City schools closed in March 2020.

In June 2021, the school acknowledged top students in the Plumbing program during a completion ceremony. The school will also increase the number of students who earn tools/equipment and/or gift cards to trade-related businesses.

In 2022, the school resumed student participation in skills competitions, such as SkillsUSA, which was cancelled in March 2020. SkillsUSA enables students to compete in various simulated contests. Coop Tech students continue to perform better than they generally had in the past and the school attributes their success, in part, to the equipment they were able to purchase with the East Harlem funding.³²

The school's future plans and objectives include:

- Expand the curriculum and initiate other programs into the gas safety training, *e.g.*, “hard trade” programs such as Welding, Building Maintenance, Electrical and Carpentry. These students will also benefit from increased gas safety awareness.
- Using a train-the-trainer model, the school administration plans to adjust the curriculum to make it applicable to the additional hard trades and teach the teacher/students what

³² Awards included: First place: Architectural Drafting, Medical Terminology, Chapter Display, and Cisco/Internetworking; Second place: Banner Design, and OSHA; and Third place: Plumbing.

they need to know with regard to their specific trade area (*i.e.*, offer less technical and more practical teaching of gas safety).

- Train the trainer model could include professional development sessions, interdisciplinary projects, practicing the use of different testers/equipment.
- Upgrade the welding program's equipment to facilitate understanding about gas systems, piping, leaks and protocols. Under consideration are adding more testers, equipment, trainers, combustion analyzers and piping to test/simulate. This allows the school to increase the number of students exposed to the gas safety curriculum.
- Resume student participant in additional competitions, beyond SkillsUSA, and consider school-based competitions.
- Purchase natural gas detectors for graduating students after they successfully completed the plumbing curriculum (using East Harlem funds). This could also be expanded to other programs and possibly connected to students "teaching" adults the importance of gas safety.

The planned Coop Tech internships with Con Edison for 2020 were affected by the COVID-19 closures. Like other internships, Con Edison planned to offer in 2020, the Coop Tech internships were put on hold indefinitely. The Company has facilitated introductions with the Northeast Gas Association and the Plumbing Foundation City of New York, Inc., to expand potential networking opportunities between Coop Tech and their member organizations. While those internship efforts were suspended, Coop Tech hopes to use these relationships to establish worthwhile internships in the near future.

On May 20, 2021, the Company received a special recognition award during the Alternative Schools District 79 Family and Community Engagement Appreciation Event. The event recognized the Company for its work with Coop Tech and its contributions to students' growth and development.

VI. Small Business Outreach

Con Edison targeted small businesses through various partnerships and events, including giving presentations and attending small business fairs. Con Edison representatives provided

information on such topics as small business gas safety and the roll-out of natural gas detectors to residential gas customers in East Harlem. These presentations/events have included: a small business fair at Columbia University-Harlem Small Business Development Center (November 2019); three small business gas safety forums (first quarter of 2019); and a presentation to the Residential Management Council of the Real Estate Board of New York (“REBNY”) (May 2019). The Company continued to work with other partners to find more outreach opportunities. These efforts were put on hold due to the pandemic. Con Edison will look to re-engage with our small business partners and will be planning events in the near future, as more in-person gatherings resume.

Due to COVID-19, since March 2020, Con Edison has faced the challenge of planning virtual outreach and finding the right audiences. Con Edison partnered with the Northeast Gas Association to explore opportunities through their stakeholders, members, and industry partners. Those discussions are ongoing, and the Company hopes to be able to schedule additional events in the near future.

VII. Community and Stakeholder Outreach in East Harlem

The Company has stayed in contact with stakeholders/community leaders in Community Board 9, 10 and 11, including an update to Community Board 11 in May 2019 about the upcoming distribution of methane gas detectors. The Company also stayed in communication with Assembly Member Robert J. Rodriguez, including two letters in November 2018 and May 2019 explaining our research and development of remote methane detectors using automated meter reading equipment, and advising him of the natural gas detector distribution to his East

Harlem constituents, respectively.³³ The community has also received ongoing messaging about gas safety through media campaigns, and scratch and sniff mailers, for example. As referenced above, while in-person events were put on hold due to pandemic, the Company looks forward to re-engaging with community partners.

VIII. Remaining Funds and Interest

As noted above, there was a remaining balance of \$1.025 million of unused funds and accrued interest. Staff supported Con Edison's request to use these remaining funds to fund the installation of Emergency Main Stop-off Stations ("EMSOS") and the purchase of a mobile training trailer (~\$100K) with these remaining funds. EMSOS provides a means to isolate flow in large diameter low pressure cast iron mains by deploying an inflatable stopper into the main from the street surface through a pre-installed tube, without requiring an excavation or the tapping of the main during an emergency situation. The training trailer contains gas equipment and piping and will be used for providing gas hazard awareness training for first responders in Con Edison's service territory, including firefighters, police officers, city and county emergency management, department of environmental protection, NYC housing authority, department of public works, and municipal inspectors. This allows Con Edison to train first responders at their own facilities, which will enable more of these first responders to attend this type of training. However, due to supply chain issues, procuring the training trailer and other necessary equipment has been delayed, therefore, Con Edison plans to fund this at a later date using non-East Harlem funds. As of April 30, 2022, Con Edison used all remaining funds to install a total of twenty-four EMSOS stations, including, all eight EMSOS stations located in East Harlem.

³³ In 2021, Assembly Member Rodriguez left office to serve as acting Secretary of State, nominated by Governor Kathy Hochul.

IX. Conclusion

As of April 30, 2022, Con Edison has depleted the total East Harlem Funds, including interest, of \$26,630,142; \$25,605,092 of which was used to address the programs approved by the Funding Order, and the remaining funds, \$1,025,050, were used to fund the installation of EMSOS stations.