System Energy Efficiency Plan (SEEP) 2019-2025

Consolidated Edison Company of New York, Inc.
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Case 15-M-0252
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Introduction

Consolidated Edison Company of New York, Inc. ("Con Edison" or the "Company") submits this System Energy Efficiency Plan ("SEEP") for 2019-2025, as required by Department of Public Service Staff's ("DPS Staff") Clean Energy CE:02 SEEP Guidance Document issued September 1, 2020.[1]

Con Edison continues to support the State's clean energy objectives.[2] To help meet the State's goals, Con Edison is investing over $1.7 billion to increase its energy efficiency savings by 2025. The Company's suite of energy efficiency initiatives is aligned with the State's clean energy policies and priorities to reduce greenhouse gas emissions, provide clean heating alternatives, support low- and moderate-income customers and communities, and help customers manage their energy use.

This filing outlines the Company's budgets, targets, programs, and approaches to achieve the above goals, as well as the targets established by the New York State Public Service Commission (the "Commission").

Executive Summary

As noted above, the Company supports New York State's ambitious clean energy objectives and views energy efficiency as a core pathway to achieving these goals. 2019 – 2025 is a period of significant growth and development for the Company's energy efficiency programs – which are projected to almost double, from approximately 2,445,000 MMBTU in 2019 to approximately 4,723,000 MMBTU in 2025. At the same time, other key initiatives continue to take shape – including non-wires solutions ("NWS") projects, non-pipeline alternatives ("NPA") projects, clean heating, and efforts to support low- and moderate-income ("LMI") customers and communities.

[1] DPS Office of Markets and Innovation, Clean Energy Guidance CE-02: SEEP Content Guidance, September 1, 2020.
[2] The New York State Public Service Commission's (the "Commission") *Order Adopting Accelerated Energy Efficiency Targets*[2] ("Accelerated Efficiency Order") established a goal of reducing customer energy usage by 185 trillion British thermal units ("TBtu") statewide by 2025. Following the Accelerated Efficiency Order, New York adopted the Climate Leadership and Community Protection Act ("CLCPA").[2] The CLCPA requires the State to achieve a carbon free electricity system by 2040 and reduce greenhouse gas emissions 85 percent below 1990 levels by 2050. The CLCPA also mandates that 35 percent of overall benefits of spending on clean energy and energy efficiency programs be directed towards disadvantaged communities. Most recently, the Commission's *Order Authorizing Utility Energy Efficiency And Building Electrification Portfolios Through 2025*[2] *("NENY Order")* directs an additional incremental 35.8 TBtu utility-driven energy efficiency saving, with corollary goals of achieving (i) 3 percent annual reduction in electricity sales by 2025 and 1.3 percent of natural gas sales, (ii) an aggregate reduction of 3.6 TBtu through heat pump deployment, and (iii) the continued provision and enhancement of programs for LMI customers. *See*, *e.g.*, Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative*, Order Adopting Accelerated Energy Efficiency Targets, (issued December 13, 2018); Chapter 106 of the Laws of 2019. CLCPA is available at https://legislation.nysenate.gov/pdf/bills/2019/S6599; and Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative*, Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios Through 2025, (issued January 16, 2020).

To grow energy efficiency and support attainment of the State's clean energy objectives, the Company is: focusing on deeper energy efficiency measures, clean heating electrification, and natural gas demand reduction; improving its implementation approaches; fostering inclusion and stakeholder engagement, including with low- and moderate-income communities; and mitigating the impacts of the COVID-19 pandemic on its energy efficiency programs.

Deeper Energy Efficiency, Natural Gas Demand Reduction, & Heat Pumps

Deeper energy efficiency measures include measures like building envelope improvements, such as insulation, air sealing and windows; HVAC equipment; and other building equipment or systems. Many of these measures provide durable reductions in energy use over time at an added implementation cost[3] compared to lighting measures, for example. To work within program budgets and meet program targets while expanding emphasis on these measures, the Company will work to translate strategies that have been effective in reducing implementation costs in other areas to this newer endeavor.

Helping customers reduce their consumption of natural gas – especially on peak days – is of particular importance in the Company's service territory due to constraints on the availability of natural gas. Reducing customers' use of natural gas also supports the attainment of the state's GHG reduction goals. The Company plans to grow its natural gas energy efficiency programs by more than 270% during the 2019-2025 period.

Increasing the adoption of both air-source and ground-source heat pumps through the Clean Heat New York program will be a core component of the Company's efforts to pursue deeper energy efficiency measures as well as to reduce customers' consumption of natural gas for space and water heating. Heat pumps will also be a focus of the Company's NPA programs[4] – allowing these two concurrent efforts to build upon one another. The Company plans to invest more than $227 million to help customers install heat pumps in their homes and businesses by the end of 2025.

Continuous Improvement

As it operates its existing programs and increasingly expands into these new areas, the Company will focus on improvements. Achieving the ambitious targets established in the NE:NY proceeding will require a virtually unprecedented effort. The Company expects to learn a great deal in the process and to share and incorporate these lessons learned into its programs. The dynamic program structure enabled by the flexible implementation model adopted by the Commission will allow these lessons learned to be incorporated quickly as the Company pivots from underperforming programs to those that are more successful.

[3] These measures often involve more expensive equipment and other costs (*e.g.*, building renovation and occupant disruption).

[4] Case 19-G-0066, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Gas Service*., Proposal for Use of a Framework to Pursue Non-Pipeline Alternatives to Defer or Eliminate Capital Investment in Certain Traditional Natural Gas Distribution Infrastructure," (Filed September 14, 2020).

One example of this has been the Company's recent focus on targeting midstream and upstream portions of the supply chain, which are aligned with the Company's desire to promote more widespread installations of energy efficient equipment at customer locations. Through these efforts, residential customers are now able to benefit from rebates directly in the price of items on the shelves of popular retailers, eliminating the need for complex rebate forms. Commercial and industrial customers see similar benefits through lighting distributors that serve this segment of the market.

Through 2025, the Company will focus on the following key areas as part of its continuous improvement objectives: cost efficiencies, incorporating insights from its evaluation efforts more quickly, and enhanced coordination with the New York State Energy Research and Development Authority ("NYSERDA").

Fostering Inclusion and Stakeholder Engagement

All customers should benefit from clean energy solutions. LMI customers often bear a higher overall energy burden than higher-income New Yorkers and have not historically participated in clean energy programs, including energy efficiency programs, at the same rate as the broader population. The Company is working closely with the Department of Public Service Staff ("Staff"), NYSERDA, and other New York utilities to expand LMI participation in energy efficiency and, as described in further detail in the Statewide Low- and Moderate-Income Portfolio Implementation Plan (" Statewide LMI Implementation Plan")[5], will be launching expanded program offerings for these customers beginning in 2021.

The Company will also be expanding its efforts to engage stakeholders in the coming years. The Statewide LMI Implementation Plan provides for numerous opportunities for stakeholders to engage with the Company on developing energy efficiency offerings. The Company will also host an annual stakeholder forum on energy efficiency in May of each year and will participate fully in the Commission's Performance Management and Improvement Process.[6] The Company will also continue to engage with property owners and the City of New York in the implementation of its Local Law 97, which requires large building owners to significantly reduce the carbon footprint of their properties.

Mitigating COVID-19 Impacts

At the same time, the Company is working to support its customers through the COVID-19 pandemic and what may become a challenging aftermath for the Company's service territory. New York City, in particular, is seeing many businesses close and tenant spaces being vacated as companies transition to remote work and fewer commuters and tourists visit the city each day.

[5] Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative,* "Statewide Low- and Moderate-Income Portfolio Implementation Plan," (Filed July 24, 2020).

[6] Matter 20-01201 - *In the Matter of the Performance Management and Improvement Process*, " Energy Efficiency & Building Electrification Performance Management and Improvement Process Plan," (Filed May 29, 2020).

To support its customers through these challenging times, the Company is offering increased incentives, flexible deadlines, and virtual tools – such as virtual inspections – to make it easier to qualify for incentives.

In sum, the Company looks forward to the next five years as an exciting period of growth and learning, with many opportunities to overcome new challenges by working with Staff, NYSERDA, stakeholders, and customers. The suite of programs described herein is designed to support achievement of the Company's goals in a cost-effective way and leverages the ability to shift program budgets and re-align strategies to meet those goals.[7]

NE:NY EE Program Descriptions

Con Edison's energy efficiency programs are focused on providing customers greater control over their energy use. The Company's programs are tailored to each customer segment's needs. The offerings described below are not static, but rather evolving strategies that respond to market changes to serve a broad and diverse set of customers.[8] As a whole, initiatives are designed to deliver energy efficiency savings, meet customer expectations in an effective manner, and offer multiple opportunities for engagement with the Company and market partners. As such, customers can access information and energy efficiency saving incentives through the multiple delivery channels discussed further below.

Commercial Sector

Con Edison offers a robust suite of products and services to commercial customers of all sizes and business types. The Company has engaged over 1,000 market partners who are critical to the Company's efforts to meet energy savings goals. Market partners work with customers daily to leverage Con Edison incentives that make efficiency projects economically viable to deliver energy savings. This work includes identifying energy saving opportunities, developing a performance improvement plan, and installing cost-effective energy efficient technologies.

There is no one-size-fits-all program or solution for any energy user, particularly for large, sophisticated customers. Recognizing the distinct nature of commercial customers, the Company offers four separate market-based offerings through which customers may address their particular business objectives and constraints. The portfolio includes large commercial and industrial ("C&I") prescriptive incentives, large C&I custom incentives, and the Small Medium Business ("SMB") program. The Company is not limited to these approaches and has also launched new offerings utilizing midstream and upstream delivery channels, such as the Instant Lighting Incentive Program

[7] The NENY Order grants utilities flexibility to shift funds among these portfolios if it can demonstrate that it will meet the annual target for the portfolio from which funds are being transferred.
[8] For some Company energy efficiency initiatives, such as the Multi-family and Commercial Direct Install programs focused on delivering energy efficiency in targeted locations, the Company offers higher incentives.

described later in this section, to incentivize energy efficiency measures in this sector.

Commercial Electric & Gas Programs

The C&I program provides prescriptive incentives for energy efficient technologies, such as high efficiency lighting and controls, chillers, HVAC measures, insulation, and variable frequency drives ("VFDs"). The program is currently available to individually metered commercial electric and gas customers. Currently, incentive amounts are capped at 50 percent of the customer's project cost for eligible measures and total project incentives are capped at $1,000,000 for custom electric and $250,000 for custom gas per account, per year. Typical project life cycles are under four months.

The Company also offers rebates for custom efficiency projects. The custom track is a flexible and innovative equipment replacement program designed to encourage C&I customers to identify energy saving opportunities and implement cost-effective retrofit projects. Custom projects involve the installation of non-lighting measures that are not qualified for the prescriptive track and, as such, require additional engineering analysis to determine energy savings. Other energy saving strategies available through the program include, but are not limited to, demand control ventilation or heat recovery ventilator, or chilled water optimization.

The Company is focused on identifying and engaging customers in heavy energy use sectors. Hospitals, universities, and the banking sector are some of the areas where Con Edison may see significant potential for savings. The Company expects that securing long term partnerships with large energy consumers can produce considerable savings. At the same time, the Company is exploring avenues to reward the highest performing contractors to further incentivize high performance.

The Company is further seeking to transform markets for efficiency measures through midstream and upstream C&I offerings for lighting and HVAC measures. These initiatives are part of a sustained effort to deliver innovative and market transformative more cost-effectively.

Strategic Energy Partnerships

With its Strategic Energy Partnerships ("SEP") program, launched in 2019, the Company is focused on identifying and engaging heavy energy use customers. The SEP is intended to further engage customers as they participate in Con Edison's programs. Each SEP customer has a designated Con Edison representative to support energy efficiency initiatives and help navigate program offerings. Through quarterly customer meetings, the Company develops long-term relationships with customers to understand their capital planning cycles, while providing opportunities to discuss program updates and project status. SEP customers receive information about timelines for review, inspection, or approvals of SEP projects. These partnerships enable the Company to work with the customer to build out longer term roadmaps that can address more time-intensive opportunities for deeper energy savings.

Instant Lighting

The Instant Lighting Incentive Program ("ILIP"), launched in March 2018, is an upstream lighting program available to commercial and multifamily customers. Through ILIP, customers receive instant incentives on eligible ENERGY STAR®-certified and Design Lights Consortium-listed lamps at the point of sale. To be eligible to participate, participants must purchase or manufacture qualified products for sale to electrical contractors, electricians, builders, developers, building maintenance staff or service companies, or any other buyer servicing commercially metered electric customers in Con Edison's service territory. Participants must submit at least one sale to the program every six months and must note the Con Edison incentive on the customer's invoice.

During 2020, the Company changed how the program is delivered; now ILIP is delivered entirely by the internal program team, instead of by an implementation contractor. The program team expects the in-house effort and associated program changes to increase the net install rate of measures. Quality assurance ("QA") is confirmed through customer surveys that enable Con Edison to evaluate program realization rates. Market saturation is measured in aggregate by measure technology across all programs. There are currently no plans to offer higher incentives to customers for system constraint purposes. With the 2020 program changes, project pipelines are expected to vary from three to eight weeks, from the date of participant submission to the date of participant reimbursement. Meanwhile, the end customer receives the incentive immediately at the point of sale.

To expand ILIP offerings, the program team continues to work with other programs to determine ways to offer LED retrofits and fixtures without overlapping significantly with the other programs. Furthermore, ILIP seeks existing pockets of demand for lamps by partnering with manufacturers who specialize in lamp sales, and by evaluating opportunities to incorporate aggregators into the participant eligibility criteria.

Commercial Kitchen

Con Edison launched a program to incentivize high efficiency gas food service equipment in January 2020. As part of the program, Con Edison partners with food service equipment dealers to offer rebates at the point-of-sale to non-residential customers for the purchase and installation of energy efficient natural gas food service equipment. To make participation easier for equipment dealers, Con Edison has been coordinating with National Grid to align on program requirements, measures, and incentive levels.

This program offers incentives for energy efficient ovens, griddles, steamers, and dishwashers for customers with gas water heating. Con Edison expects the majority of participants will be restaurants, grocery stores, and schools. Con Edison is considering expanding this program in 2021 to include additional gas and electric measures. Specifically, Con Edison is considering gas broilers and kitchen demand ventilation controls and electric fryers, ovens, griddles, steamers, dishwashers, hot food holding

cabinets, ice machines, commercial refrigerators and freezers, and broilers.

Commercial Upstream Water Heating

In April 2020, Con Edison launched a program to incentivize high efficiency commercial water heating equipment. Initially, this program incentivized condensing storage, condensing instantaneous water heaters, and indirect water heaters with high efficiency boilers. As of September 1, 2020, this program was expanded to include small space heating equipment by adding boilers, furnaces, unit heaters, and combination water heaters and condensing boilers. This program aims to deliver significant energy savings for commercial and multifamily customers by engaging with distributors of natural gas heating equipment to increase the stocking and sales of high-efficiency models. To make participation easier for distributors, Con Edison has been coordinating with National Grid to align on program requirements, measures, and incentive levels.

Con Edison expects the majority of participants will be multifamily buildings, restaurants, hotels, and offices.

Small-Medium Business

Within the commercial sector, the Company also operates its Small-Medium Business ("SMB") program (formerly the Commercial Direct Install program), which serves as a significant source of megawatt-hour (MWh) and megawatt (MW) energy savings in the program portfolio. The SMB program provides a wide range of services to small and mid-sized commercial customers that may not otherwise have the time, expertise, or available capital to access and implement energy saving technology upgrades. Through the SMB program, commercial customers with an average peak-demand of 300 kW and below can take advantage of low to no-cost energy efficiency equipment upgrades for their businesses.

Traditionally, the program has leaned heavily on LED lighting upgrades, but more recently, the program is shifting to a more complex and comprehensive measure list and has expanded its offerings in the following categories: refrigeration, HVAC, controls, and gas upgrades. In 2019, the program achieved its goal is to acquire at least 25 percent of savings through non-lighting measures and will look to build on the diversity of savings acquired by deeper measures in 2020.

There are approximately 350,000 commercial customers eligible for the SMB program and to date, nearly 40,000 customers have participated in the program. Eligible customers will continue to receive a free onsite energy assessment, and if the customer chooses to move forward, the installation and material costs of energy-efficient measures will be incentivized by the program at 50 percent of the total project cost on average. The customer will be responsible for the remainder of the project costs via a customer co-pay arrangement. The average conversion timeline for standard projects is no more than 30 days.

The program will continue to work closely with the Company's C&I Program offerings to make program participation a more seamless experience. Customers with an average peak demand of 100 kW to 300 kW will have a choice in participating in either commercial path – SMB or C&I. This optionality encourages customer choice and control as well as flexibility for accommodating customer preference in choosing an installation contractor. This feature aligns with the Company's comprehensive set of offerings to commercial customers. In addition to C&I, the program is also working in collaboration with the NWS, NPS, and midstream e.g., ILIP teams.

In January 2020, the program launched a Minority and Women-owned Business Enterprise ("MWBE") initiative that provides an opportunity to more effectively address the needs of low-demand small business customers through increased access to affordability of energy efficiency services. As part of this initiative, the SMB program, in collaboration with our internal Supplier Diversity team, NYSERDA, and its implementation contractor ("IC"), is offering an energy efficiency technical training program to provide high-quality, real-world training opportunities for job seekers looking to enter this green workforce, as well as MWBE contractors looking to get their staff additional training and/or hire new quality workers.

Self-Direct Program

During its operation, from 2017 through 2019, the Self-Direct Program provided incentives to large energy users that were self-funded through banked system benefits charges associated with their enrolled accounts. Through the program, customers were provided incentives on a custom rate for each project, capped at 100% of their project costs for lighting and non-lighting measures. While Self-Direct customers were unable to participate in other Energy Efficiency Transition Implementation ("ETIP") programs, they maintained eligibility for energy efficiency and system peak demand reduction programs funded through base rates.

This program was closed out at the end of 2019. The Company had communicated with and engaged participants enrolled in this program to transition these customers into other programs offered by the Company. The Company has extended completion deadlines to existing participating customers due to the State of New York's PAUSE orders in response to the COVID-19 pandemic. The Company is working with these customers to ensure their projects are completed before the end of the year.

The program had 11 participating customers in 2019 with an average project life cycle of roughly 10 months.

Residential Sector

The Company offers a variety of programs to serve residential customers. The Company employs a host of strategies and operational improvements to serve customers in an innovative and market-oriented manner. This strategy includes giving customers multiple options and opportunities to reduce their

energy use based on their unique needs. Examples for residential customers include accessing rebates and incentives through market partners, shopping directly through the Online Marketplace, and benefiting from market-based partnerships between Con Edison and retailers through in-store purchases to access market transformational upstream incentives, or through the Smart Kids Education program.

Residential Electric & Gas Programs

The Residential program portfolio targets renters and owners living in existing 1-4 family housing with a strong focus on acquiring new savings in non-traditional or new markets, increasing flexibility in facilitating energy savings and peak demand reduction, and improving customer experience.

The core parts of the Residential portfolio are the HVAC Midstream Electric and Gas programs which offer rebates for energy efficient heat and cooling equipment, including, but not limited to, eligible pool pumps, electronically commutated motor ("ECM") fans and pumps, boilers, and furnaces. Incentives are offered to HVAC distributors and contractors to cost effectively scale the program to a broader audience. Furthermore, the Company, through the New York State Clean Heat Program, is offering new opportunities for all customers to either upgrade their existing heating system to an air-source heat pump, geothermal heat pump and heat pump water heater, and/or to weatherize their home envelope and ductwork with improved insulation.

Additionally, the Company is continuing to coordinate energy efficiency with peak-demand reduction efforts.[9] The Direct Load Control ("DLC") Bring Your Own Thermostat ("BYOT") offering is now coordinated administratively with efficiency initiatives to incent customers to reduce overall energy use as well as their use during times of system peak demand. Enrollment allows Con Edison limited adjustments to the customers' cooling and heating equipment settings during the summer and winter seasons to reduce demand and high energy use. Customers still retain final control and can override the settings at any time. BYOT customers will have access to a larger incentive through enrollment in the demand response program as well as the energy efficiency rebate; upon purchase, either on the Con Edison Marketplace or at participating retailers, a customer can receive a rebate for energy efficiency savings (currently set at $50), and an additional larger incentive (currently $85) for registering the device with Con Edison for demand response purposes. The Company is continuing to explore the synergies between energy efficiency and demand response, and to test new controllable devices and incentive mechanisms to incentivize beneficial behavior.

The HVAC electric and gas rebates programs offer distributor and contractor incentives, and are

[9]Alongside the BYOT program, Company Provided Thermostats ("CPT") continue to be an active resource for demand response events in the DLC portfolio, even though the Company is no longer accepting new enrollments. This decision was driven primarily by cost and communication platform considerations, and a general desire to progress toward offering customers choice in the devices they place in their homes. Customers with CPTs will still be called upon to reduce load during demand response events.

marketed to, and delivered through, a trade ally network of HVAC distributors and contractors. The HVAC electric and gas programs work on an upstream model wherein participating distributors are required to pass down at least 50 percent of the rebate to the contractor after verifying equipment and customer eligibility following the completed installation. To qualify, contractors submit completed projects that are reviewed by the distributor, the implementation contractor and Con Edison program staff for final approval and processing of payment. Upon receipt, 10 percent of incentive claims go through a quality control ("QC") review for eligibility, completeness, and accuracy. Each review request will include a copy of the distributor invoice and installing contractor's job invoice (including contractor and homeowner contact information).

The Company plans additional outreach to expand the footprint of the trade ally network. The HVAC upstream electric program includes pool pumps and ECM furnace fans and pumps. Central air conditioners have been removed as a program offering with the advent of the New York State Clean Heat program, which offers rich incentives for technologies that can efficiently cool and heat a customer's premise. HVAC Upstream Gas program measures include indirect water heaters, storage water heaters, combo boiler and furnaces, steam and water boilers. Rebates are calculated per ton or per unit depending on the measure and are offered to individually metered residential electric and gas customers.

Smart Kids

The Smart Kids Energy Efficiency Program is designed to educate 5th grade students across the Company's service territory on the role energy plays in their daily lives as well as give them the tools to learn real-world energy-saving tactics. Starting in 2020, the Company updated the Smart Kids curriculum to include heat pump technology to broaden knowledge on this lesser known but important technology. Participating students are guided through an educational program by their teachers and are also given a customized Smart Kids Energy Efficiency Kit to take home. The Smart Kids Energy Efficiency Kits include three 9-watt LED lightbulbs, a high-efficiency three-way showerhead, a kitchen faucet aerator, a bathroom faucet aerator, a digital thermometer, a student guide and a workbook. Instilling energy awareness in students at an early age, along with knowledge and tools needed to be engaged and educated about their energy choices provide long-term positive benefits as the State works towards REV goals and transitions to a cleaner energy profile.

Con Edison Marketplace

The Con Edison Marketplace primarily serves as an e-commerce platform where customers can receive instant discounts for LED lamps, smart thermostats, and advanced power strips. In collaboration with other organizations of the Company, the Marketplace developed modules that foster greater facilitation of customer engagement with contractors, streamlined participation and eased the enrollment process. Customers interested in solar photovoltaic installations can browse the Solar module to speak with trusted energy advisors, obtain competitive quotes from contractors, and proceed with customized solar

projects. Other modules focus on educating customers on the various benefits of energy efficient technologies by comparing energy consumption and price of various electric vehicles and home appliances, such as refrigerators, room and wall air conditioners, washers, and dishwashers. Products are given an energy score based on various factors, in which customers can use to make a better-informed purchasing decision. While the modules are available to all, the instant discounts provided on the e-commerce platform are only available to Con Edison customers. Systematic checks have been put into place at point-of-purchase to check that discounts are being applied only to eligible purchases.

Residential Home Energy Reports

The Residential program includes a behavioral Home Energy Report ("HER") program. A HER motivates customers to use less energy and save money on monthly bills by providing customer-specific energy usage information, "neighbor" comparisons and personalized energy saving advice. This program acts as another touchpoint with customers, allowing them to take control of their usage through educational tips through email and printed mailers. Additionally, the HER program provides Con Edison with measurable and verifiable information about customer behavior.

Despite the program's success, the Company plans to adopt some changes for improved customer engagement while encouraging program cost efficiencies. The Home Energy Report program will be administered in 2021 to approximately 355,000 customers, fewer customers than its current program year but focusing on delivering tailored communications to customers with higher than average energy consumption.

Retail Lighting

The Retail Lighting program is designed to increase market share of ENERGY STAR®-certified LED lamps within the Con Edison territory. The program provides instant rebates to customers at their point of purchase in big-box retailers, as well as smaller retailers, such as drug stores and dollar stores. The Retail Lighting program's coordination with smaller retail stores increases accessibility for all customers, including LMI customers. The program has an upstream design, with Con Edison providing incentives directly to lighting manufacturers under the terms of an executed Memorandum of Understanding, requiring them to provide instant discounts to customers purchasing eligible lamps at participating retailers. Upstream incentives enable achievement of scale by reaching customers at the point of purchase. The Retail Lighting program's emphasis on its outreach to LMI customers through food banks also enhances accessibility of clean energy benefits for all customers. Install rates are not specifically tracked at a measure level, and the realization rate for the program is 100 percent. QA is confirmed through customer surveys that enable Con Edison to evaluate the program realization rate. Market saturation is measured in aggregate by measure technology across all programs. Manufacturer invoices are provided as back-up documentation with each invoice to track the number of lamps sold at each retailer location.

To promote growth of Retail Lighting, the Company is exploring online opportunities, such as integration with the retailers' online platforms and the expansion of online pop-up e-tail events to connect participating organizations' employees with lighting incentives. As an ongoing effort, the Company is encouraging more local hardware and convenience stores to join the program.

Midstream Retailer Incentive Program

The Retailer Incentive Program is a midstream appliance and electronics program designed to increase energy efficient product penetration and facilitate long-term market transformation. This program provides targeted financial incentives at the "midstream" (or retailer) level to influence buying, stocking, and marketing decisions both at the local and national scale. In 2020, the program modified the incentive structure by providing incentives in the form of price markdowns to customers as the downstream Appliance Rebate program discontinued. Midstream incentive programs have the potential to increase market penetration of efficient technologies at lower unit cost achieved through economies of scale compared to more traditional downstream (consumer-targeted) incentive programs.

The Company and participating retailers and retailer networks (such as Home Depot, Best Buy, and Lowe's) leverage national marketing messages and co-branded marketing templates developed by the EPA, tailored directly to customers in the respective regional service territories. To assist with in-store marketing, our vendor's field services staff conduct store visits and educate store employees as necessary. The Company adheres to a consistent national program design and common product categories using specifications agreed to by all participant parties. Product categories will be shifted in the longer term as markets develop and technologies change. The Company takes the necessary precautions to prevent duplicative incentives by checking retailer location for approved downstream appliance rebates. Any downstream appliance purchases that took place in a participating retailer store is discounted from the retailer incentive program to avoid double counting.

Residential Weatherization Program

The Residential Weatherization Program is a single-family residential energy efficiency program that offers incentives to increase the adoption of insulation, air sealing, duct sealing, and learning thermostats in the Company's service territory. The program works with a third-party who leverages private capital, to offer a streamlined customer experience, and a pay for performance incentive structure. The Company's third-party vendor offers energy efficiency financing to qualified residential homeowners through a "pay with your energy savings" model. The customer gets the comfort benefits of energy efficient measures while maintaining their energy budget.

Most customers would have a single up-front payment that covers the balance of the energy efficiency project that will not be paid for through the customer's energy savings. Con Edison provides electric and gas incentives to reduce or eliminate this upfront payment, with the goal of converting more customers to complete energy efficiency projects than would otherwise complete such projects. Customers that

choose not to use financing are still able to receive incentives. Eligible measures include smart thermostats, attic insulation, wall insulation, whole-house air sealing, and duct sealing.

The program combines Con Edison co-marketing and pay for performance incentives with private, performance-based financing with the aim to maximize the uptake of weatherization projects as well as the realization rate of the energy savings.

Multifamily Sector

Multifamily Electric & Gas Programs

The Multifamily Program promotes energy efficiency for existing multifamily electric and gas customers. The multifamily market consists of nearly 70,000 residential buildings across New York City and Westchester County.

The multifamily program targets owners and property managers of residential buildings with five or more units. Eligibility is dependent on being a Con Edison electric or gas customer (interruptible gas is now eligible). Every customer who applies to the program may be able to qualify for one of three exclusive participation tracks: affordable housing track for electric and gas customers that receive designated low-income subsidies from a major government agency (i.e., Section 8, Housing Development Fund Corporation ("HDFC") related financing, or tax credits and are in turn subject to that agency's regulations), the Neighborhood program track for electric customers for buildings located within targeted neighborhoods where Con Edison seeks additional demand-side management resources, or the Non-Pipeline Solutions track for gas customers residing in Westchester.

After enrolling in the Multifamily Program, customers have the option to select their desired energy efficiency products and services from a menu of offerings, which include direct installations, and both prescriptive and custom rebates for both gas and electric measures. The program offers to help facilitate the coordination of building surveys and custom assessments to help customers identify which efficiency solutions are right for them. As with the C&I program, prescriptive rebates are for a preset list of mainstream energy efficiency measures that can be installed by any participating contractor that is qualified under the program, while custom rebates are for an open-ended category of efficiency technologies that require a site-specific analysis to estimate the energy savings. For custom measures, the rebate is based on a fixed price ratio that considers energy savings that are formulated in the custom assessment report. The remaining costs of these measures are to be paid by the customer to its selected participating contractor.

The Multifamily Program continues to leverage and foster several working relationships to support the success of the program. Con Edison continues to partner with New York City Mayor's Office on Sustainability Retrofit Accelerator and Community Retrofit Programs, National Grid's Multifamily Program, NYSERDA's Multifamily Performance Partner Program, New York City Department of Housing

Preservation and Development: Green Housing Preservation Program, New York City's Weatherization Assistance Program and the Con Edison Neighborhood Program. These programs all work towards better synchronizing efforts to coordinate offerings and increase program participation.

The program management team has continued to focus on making enhancements to the program's design and documents wherever appropriate. The program team solicited feedback from contractors, customers, and internal and external stakeholders. Insights collected through this feedback process enabled the program team to make changes to the program application, the participating contractor on-boarding process, program marketing materials, program measures, the custom process, and lead dissemination generated from our marketing campaigns. In addition to these enhancements, the program team has held numerous orientation classes to recruit contractors and consultants as well as training sessions on steam heating, LED lighting, and custom (non-prescriptive TRM measures). Additional market education efforts through these orientations, on-boarding, and training initiatives, resulted in the participating contactor network growing to include more than 100 participating contractors who actively sell and install efficiency projects within the multifamily program.

In anticipation of the 2020 program launch, the program began exploring additional program offerings which included steam traps, steam line venting, elevator modernization, and prescriptive HVAC upgrades. The expansion of the program into these measures was a result of updates to the New York State TRM as well as discussions with the market (participating contractors and customers) who were looking for incentive opportunities to help offset the capital cost of performing these upgrades. In addition, the program successfully expanded the 2-Pipe Steam Retro-commissioning ("2PS RCx") efficiency package which was originally launched in 2018. Over the past two years, the program, which included classroom and on-site training for participating contractors and a careful selection of a handful of suitable projects (based on size, complexity, and probability of being completed), has completed eight projects with three more expected to be completed by the end of 2020.

As with the Company's C&I and Residential Programs, the Multifamily Program is integrating new offerings to meet NPS goals such as a targeted incentive opportunity for residential building owners and property managers in Westchester County and other areas of the service territory. These incentives are applied to prescriptive air sealing and boiler controls measures and custom measures such as boiler stack economizers. In addition to NPS, the program is currently standing up a parallel path within the program to facilitate Heat Pump projects as part of the New York State Clean Heat Program.

Pilot Programs

The Company introduced the Test-and-Learn program in the Company's 2016-2018 ETIP filing[10] to

[10] Case 15-M-0252, Consolidated Edison Company of New York, Inc., Final Energy Efficiency Transition Implementation ("ETIP") 2016-2018, (Filed April 1, 2016).

implement new technologies, programs, initiatives, and campaigns. The Company has since transitioned and formalized the Test-and-Learn strategies into the new Pilot Programs, which is responsible for identifying and evaluating new measures and program delivery methods. When new measures or program delivery methods are proven to be effective, the Company explores the opportunity to incorporate them into the Company's main program portfolio.

New measures are evaluated through a coordinated process involving multiple teams across the department. New measures are identified through customers, trade allies, other utilities, industry associations, government agencies and other relevant sources. Measures are then screened, prioritized and reviewed for technical feasibility, compliance with relevant codes/standards, market potential, cost effectiveness, and customer impact. Measures that receive a positive evaluation then proceed to a M&V stage, where Con Edison conducts M&V on demonstration projects to evaluate energy savings and any proposed energy savings calculations. Once Con Edison has confidence in a new measure, it can be adopted into the relevant program and/or referred to the Pilots team if a novel program delivery method is needed to enable market adoption. The measure may also be referred to the TRM committee.

Pilot Program Strategy and Process

The process for identifying and evaluating new program delivery methods involves five phases:

- "Identify" is the first phase of the process. This step generates new pilot ideas and delivery mechanisms from both the external marketplace and internal resources. The Company screens the ideas using criteria such as market potential, cost- effectiveness, customer experience and fit with existing programs.

- Opportunity validation is the second phase. In this phase, the Pilots Team researches the market context, sizes the opportunity, estimates cost effectiveness at scale, identifies non-energy benefits, evaluates customer economics and identifies risks.

- "Design" is the third phase. After the fundamental opportunity has been validated, different program designs are considered, evaluated, and refined. This stage helps to determine the target customer segments, pilot structure, applicable measures, timeline, scale and necessary resources. Additionally, key objectives, milestones and KPIs used to evaluate success are documented.

- "Implement" is the fourth phase. A planning schedule sets forth the tasks required to launch any new pilot with a heightened focus on achieving a positive customer experience and evaluable results. These efforts are coordinated with marketing, evaluation, and adjacent program delivery teams.

- "Evaluate" is the fifth and final phase. During the implementation phase, the Company identifies programmatic lessons learned, proactively solicits customer opinion, and frequently conducts a formal evaluation to establish energy savings. Based on a review of these data, anticipated costs and Company priorities, pilots are ramped up, retooled or retired as appropriate.

At of the beginning of 2019, seven ongoing pilots were in the Design phase or further. Of these projects, four pilots will be ongoing while two pilots have graduated into the broader portfolio of energy efficiency programs and one was discontinued. New Movers, which provides new customers with kits that contains Energy Efficiency products and informational brochure, has been incorporated into the Company's LMI Energy Efficiency portfolio. Third-Party Residential Financing, which provides energy efficiency financing to qualified residential homeowners for deep energy efficiency projects, has become Residential Weatherization Program, which is described earlier in this document. The Building Energy Performance pilot, which was designed to educate building managers ways to save money and energy through preventative and routine maintenance, was discontinued at the end of 2019. The descriptions below are for the remaining four ongoing pilots: Pay-for-Performance, Aquanta Smart Gas Water Heater Controllers, Oil-to-electric ("OTE") conversion, and Heat Pump Demand.

Pay-for-Performance (P4P) Pilot

Pay-for-Performance ("P4P") pilot, also known as Business Energy Pro, have emerged nationally as energy policy reforms, utility commitment to AMI and smart interval meters, and advancements in data analytics allow for the use of meter-based energy savings measurement. These technology shifts enable innovation and new business models to achieve larger-scale savings, attract additional investment, and encourage energy efficiency by providing additional value across a broader range of utility customers.

Con Edison and NYSERDA are collaborating to co-design, co-develop, and co-manage the P4P Pilot. This unique collaboration seeks to utilize complementary efforts to test a new energy efficiency business model. It underscores both organizations' efforts in supporting REV goals.

The transformative element of this pilot is the measurement of actual meter-based energy savings, through measure-agnostic market pricing instead of deemed savings for specific energy efficiency measures. P4P will measure energy savings using the CalTRACK methodology,[11] which is a standardized process to calculate site-based, weather-normalized, metered energy savings by comparing an existing conditions baseline to post-retrofit utility meter data.

The P4P pilot applies a flexible framework for procuring energy efficiency savings by making payments to energy efficiency service and solution providers ("Portfolio Managers") in installments after the implementation of energy efficiency improvements. These improvements will include equipment

[11] http://www.caltrack.org/technical-working-group.html

upgrades as well as behavioral, operational, and retro-commissioning activities. While savings levels will vary across sites, P4P aims to achieve persistent metered energy savings across a portfolio of projects. This strategy allows for the monetization of energy efficiency performance benefits at the portfolio level and shifts incentive payments closer to when energy savings occur.

Portfolio Managers will have two-years to engage eligible customers and complete energy efficiency projects, and each customer site will be evaluated for three years after project completion. Portfolio Managers will be compensated at the portfolio level over the evaluation period for aggregated incremental energy savings beyond established baselines. Portfolio Managers can establish relationships to re-engage with their participating customers to increase savings amount and persistence.

The P4P pilot will focus on small-to-medium commercial customers with average annual peak demand under 300 kW in Staten Island and Westchester County. The Company will target customers with utility account history capable of supporting baseline calculations. Upon successful launch, the Company aims to complete over 2,000 projects, although COVID-19 might impact project volume significantly.

Con Edison and NYSERDA have been working closely on the program planning, design, and resource allocation since early 2018. Practical approaches have been established to address:

- Timing of payments to align with savings achievement;
- Mechanics to encourage comprehensive and deeper energy efficiency upgrades;
- Flexibility to allow Portfolio Managers to adapt approaches and offerings in response to learning and market evolution;
- Streamlined and efficient M&V approaches that ensure that savings are credible; and
- Minimized transaction costs and administrative burden through automated savings calculations.

After a competitive solicitation, NYSERDA selected an Advanced M&V software provider in Q4 2018, which will be utilized to calculate energy savings and associated payments for P4P administration. Con Edison and NYSERDA completed a request for proposal (“RFP”) solicitation for Portfolio Manager(s) in Q4 2020. The selected Portfolio Manager(s) will work with partners and contractors for two years to enlist customers to adopt measure packages and services that create customer value. The phase I pilot is anticipated to launch in Q4 2020.

Aquanta smart gas water heater controllers Pilot

In Q1 2019, Con Edison launched a pilot to test the energy efficiency and demand response potential of Aquanta’s smart gas water heater controllers. The Aquanta device, in conjunction with a compatible IT platform, allows for real-time monitoring and control of hot water usage. This device works like a smart thermostat for water heaters, learning customers’ hot water usage patterns and adjusting set points accordingly.

Con Edison has installed domestic water heater control devices in over 200 single family homes in Westchester. To incentivize participation, pilot customers were offered modules and installation at no cost. The pilot measures both energy efficiency savings (therms) and demand savings (Dth/day) from test DR events called in February and March 2020.

As the implementation contractor, ICF is responsible for customer acquisition, installation through a contractor network and customer support. As the technology provider, Aquanta is responsible for managing the fleet of devices during test DR events. West Hill is completing a third-party evaluation study to verify energy savings and to understand the customer experience. The Company expects to receive the final impact evaluation report for demand response in Q3 2020 and for energy efficiency in Q1 2021.

The results of this pilot will inform the structure of Con Edison's future gas demand response strategy as well as the potential inclusion of water heater controllers as a gas efficiency measure in residential programs.

Oil-to-Electric Conversion Pilot

Con Edison is currently executing an electrification pilot that incentivizes retrofits for 25 LMI-income households in Westchester that use oil or propane for space and water heating. Oil-to-Electric ("OTE") retrofits include weatherization measures (insulation and air sealing) installed throughout the selected homes, the installation of cold climate heat pumps for space heating and cooling, and the installation of heat pump water heaters.

The OTE pilot primarily targets single family homes. However, multi-unit buildings with up to four apartments are also eligible if the owner pays heating costs, or tenants receive rent credit equal to or greater than the added cost of heating. Customer recruitment for low-income customers will leverage referrals from the Weatherization Assistance Program ("WAP") and NYSERDA's EmPower program. Moderate income customers will be recruited by engaging with contractors, elected officials, social service agencies, and large employers.

OTE leverages incentives from WAP, NYSERDA, and the Clean Heat Program to complete retrofits at a reasonable cost to participants. After incentives, low-income households will receive retrofits at no cost while moderate-income households will receive both incentives and financing.

The Levy Partnership is the implementation contractor for OTE and is responsible for customer acquisition, site screening, project design, installation and customer support. Association for Energy Affordability will manage low-income projects and Centsible House will manage retrofits for moderate income customers. Con Edison will evaluate customer experience and will hire an independent evaluator to evaluate savings.

Customer acquisition for this pilot began in late February 2020 but has been substantially delayed by the COVID-19 pandemic. The Company expects customer acquisition and installation to continue into Q2 of 2021.

This pilot will help Con Edison quantify the energy savings that can be realized through full OTE conversions bundled with building envelope upgrades. This pilot is also testing a strategy for increasing heat pump adoption among LMI customers.

Heat Pump Demand Pilot

On July 1, 2020, Con Edison filed an implementation plan for the Heat Pump Demand Pilot. The Heat Pump Demand Pilot will offer residential customers with heat pumps on demand rates access to near real time energy usage information that allows customers to better manage their energy usage to reduce demand charges. The Heat Pump Demand Pilot will launch in late Q1 or Q2 2021 and will run for 18 months, including a full year of data collection.

Con Edison will install current transformer ("CT") based monitoring devices in up to 150 participating customer homes' electric panels. These devices will be networked to a secure cloud-based platform that will process energy usage data and conveniently present insights to the customer via mobile and web applications provided by the technology vendor.

Con Edison will hire an implementation contractor that will be responsible for customer acquisition, procuring monitoring devices, managing a network of installers and customer support. This pilot will also involve a technology vendor that will be responsible for providing users reliable, near real-time access to energy usage data through mobile or web applications and providing support related to those applications.

This pilot will test customer engagement and willingness to adjust energy usage when provided with near real-time energy consumption information. To understand the customer experience, Con Edison will conduct customer surveys and review customer engagement metrics. If this pilot yields sufficient data, Con Edison will also contract an independent evaluator to assess peak demand reduction and overall energy savings.

Low- to Moderate-Income Customers

The Company's LMI Customer initiatives, implemented as part of the state's Statewide LMI initiative are described in the JU and NYSERDA's Statewide Low- and Moderate-Income Portfolio Implementation Plan filed on July 24, 2020, which can be found in matter number 18-M-0084.[12] Offerings will be

[12] Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative,* Statewide Low- and Moderate-Income Portfolio Implementation Plan, (Filed July 24, 2020).

developed in consultation and collaboration with NYSERDA and the New York Joint Utilities. The portfolio of programs and offerings outlined in the Plan (the "Statewide LMI Portfolio" or the "Portfolio") has been designed to create a more holistic and coordinated approach to deliver energy efficiency to LMI customers and communities in New York while improving the experience of and ultimate benefit for LMI customers seeking to access clean energy services, reducing administrative costs and increase the impact of ratepayer funding, and providing more consistent and streamlined participation for service providers.

Heat Pumps

The Company's Heat Pump initiatives, implemented as part of the state's NYS Clean Heat Statewide Heat Pump Program are described in the JU and NYSERDA's NYS Clean Heat: Statewide Heat Pump Program Implementation Plan filed on May 29, 2020, which can be found in matter number 18-M-0084.[13] The NYS Clean Heat Program supports the installation of heat pump technologies that are best suited to heat efficiently in cold climates; requires participating contractors to follow best practices related to sizing, selecting, and installing heat pumps in cold climates; and promotes consumer education, including required guidance provided by Participating Contractors to customers who have heat pumps installed on how to operate and maintain their system. As part of program delivery, the Joint Efficiency Providers[14] will monitor the extent to which NYS Clean Heat incentivized heat pump systems displace or replace other heating fuels. After reviewing the program's progress, the Joint Efficiency Providers will make adjustments to improve performance as appropriate.

Supplemental EE Programs

Non-Wires Solutions

In addition to energy efficiency programs detailed in this SEEP, the Company also implements energy efficiency in areas of locational need, such as through providing additional incentives or developing new programs for energy efficiency in areas targeted by NWS initiatives.

As approved in the January 2020 Rate Case Order, the Company implements load relief in targeted areas through customer-side solutions when it would cost effectively enable deferral or displacement of infrastructure investments. The Company is currently implementing energy efficiency solutions to help

[13] Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative,* NYS Clean Heat: Statewide Heat Pump Program Implementation Plan, (Filed May 29, 2020).
[14] Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, New York State Energy Research and Development Authority, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation (collectively, "Joint Efficiency Providers").

defer traditional projects identified at the Water Street and Plymouth Street substations as well as the Newtown area. Implementation plans are filed annually in docket 19-E-0065 with the most recent plan filed on January 31, 2020.[15] Likewise, BCA summary filings can also be found in the aforementioned docket. These projects and associated activities are reported on a quarterly basis and the Company's most recent quarterly report, the Q1 2020 Non-Wires Solutions Quarterly Expenditures and Program Report, was filed on August 28, 2020.[16]

Non-Pipeline Alternatives

Pursuant to the Commission approved Rate Plan,[17] the Company is working on a new process for evaluating and implementing NPA as substitutions for traditional gas infrastructure.[18]

REV Demonstration Projects

Connected Homes REV Demo Project

The Connected Homes REV demonstration project launched in 2016 and provided residential customers with a set of tools designed to proactively connect them with cost-effective EE products and services, as well as DG offerings. It was designed to remove barriers to residential adoption of DERs and animate the DER market. The project transitioned to the Company's energy efficiency portfolio beginning in 2020. Throughout 2019, the REV Demo team worked with the energy efficiency team to determine best approaches and strategies to manage the Marketplace.

The Connected Homes platform was built in partnership with Enervee. It used data analytics to match customers with DER solutions via Con Edison's Online Marketplace, which is described in more detail in the Residential programs' section. The demonstration project also supported new business models by allowing the Company to generate revenue from third-party partners through a combination of strategies including lead generation, customer aggregation, and acting as a partner. The project also completed two customer-centered trials in partnership with Market Gravity/Deloitte, a small business

[15] Case 19-E-0065, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service*, 2020 Con Edison NWS Implementation Plan, (Filed January 31, 2020).
[16] Case 19-E-0065, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service*, NWS Q2 2020 Report, (Filed August 28, 2020).
[17] Case 19-G-0066, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consol. Edison Co. of New York, Inc. for Gas Serv., et al.*, Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plan, ("Rate Plan Order") (issued January 16, 2020).
[18] Case 19-G-0066, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consol. Edison Co. of New York, Inc. for Gas Serv., et al.*, Proposal for Use of a Framework to Pursue Non-Pipeline Alternatives to Defer or Eliminate Capital Investment in Certain Traditional Natural Gas Distribution Infrastructure (Filed September 14, 2020).

badging project, and an app-based energy management tool.

The Connected Homes REV demonstration project produced claimed savings from direct sales of LEDs and smart thermostats through the Marketplace.

Building Efficiency Marketplace REV Demonstration Project

The Building Efficiency Marketplace, also known as Energy Insights, was launched in 2016 and ended in 2019. It was a white glove service providing eligible commercial building owners with disaggregated energy use analytics paired with access to a virtual bid room. The Building Efficiency Marketplace was available to approximately 1,500 customers based on interval meter availability and building use type.

Eligible buildings were those with interval meters that meet the correct profile to carry out the analytics through a Virtual Energy Audit. The Virtual Energy Audit utilized the interval meter data and building address to create a custom report on a quarterly basis. Within a Virtual Energy Audit, customers found a variety of data points, such as a demand map, building usage breakdown, and proposed energy savings projects. The energy usage breakdown provided customers with a disaggregated view of their building energy, such as the percentage breakdown from the different sources of energy in each building (i.e., from indoor or outdoor lighting, heating and cooling, ventilation, plug load, and base systems). Within these energy breakdowns, the Virtual Energy Audit suggested, based on the usage breakdown, how much energy could be saved by carrying out different energy conservation measures, such as a lighting upgrade, VFD installation, or boiler upgrade.

Customers that were interested in carrying out energy conservation projects based on the Virtual Energy Audit worked with dedicated Engagement Specialists to utilize the virtual bid room. The Engagement Specialists did a site walkthrough with the customer and assisted the customer in scoping out the work. Once the work scope was completed, the Engagement Specialist would assist the customer in setting up a project in the virtual bid room. Within the virtual bid room, customers were able to invite potential bidders into each project to bid on the work. For customers that did not know which vendors to invite to bid, there was a randomization option to invite bidders that are on the Con Edison Energy Efficiency Participating Contractor list. Once the customer received a pool of bids, the Engagement Specialists would provide tools and guides to allow the customers to select the winning bid. The Engagement Specialists also provided initial insight into what energy efficiency incentives were available to the customer through Con Edison.

Throughout this entire process the Engagement Specialists were available to help the customer understand the Virtual Energy Audit and provided support for the virtual bid room. The Building Efficiency Marketplace coordinated with the Company's Commercial sector programs. Eligible projects that moved through the virtual bid room were able to take advantage of existing C&I incentives. The C&I sales team also had access to the Virtual Energy Audits to help existing customers determine which projects they might want to carry out, or for new customer acquisition by using the audit as a means to

start a conversation on energy efficiency.

Budget and Savings Plan Summary: 2019-2025

All figures in this SEEP, including budgets, targets, forecasted expenditures, and benefit cost analyses ("BCAs"), represent an estimate of planned and projected activities based on the Company's annual expenditures on energy efficiency programs as authorized through Commission actions. The Company will make any appropriate revisions to this plan as necessary, pursuant to Commission Orders.[19] Budget and target figures for 2020 reflect the Company's most up to date internal forecast through the remainder of the calendar year. Future year planned budget and target figures are as prescribed in the NENY Order. The Company notes that it will allocate unspent funds in 2020 across later years to make up for 2020 achievement shortfalls due to the pandemic and associated slowdown in activities.

The Company's portfolio investments include funding dedicated to incentives for our customers or market partners, and the use of third-party market actors to work as implementation contractors. The Company's portfolio investments also include administrative investments necessary for critical functions that can facilitate evolution and growth of the portfolio over time. For example, activities within Portfolio Administration include program marketing, market research and analytics, including customer segmentation studies and technical analyses of energy efficiency potential relevant to the Con Edison service territory, training for market partners on offerings and initiatives, and database development and maintenance.

Table 1A through Table 4D below include i) actual vs planned program spend; ii) program planned spend and budgets; iii) actual vs. planned program savings;[20] and iv) forecast program savings plans for Con Edison's electric, gas, NYS Clean Heat and LMI programs and portfolios.

[19] DPS Office of Markets and Innovation, Clean Energy Guidance CE-02: SEEP Content Guidance, September 1, 2020.

[20] Con Edison defines achievements (analogous to acquired) as after the post-inspection process and a desk review is completed, and/or upon receipt of relevant sales data and documentation.

Table 1A: Actual vs. Planned Program Spend: Electric Portfolio

PORTFOLIO (NE:NY Electric EE)	Actual Spend 2019	Planned Spend 2020	Actual Spend 2020	Total Actual Spend 2019-2020
Commercial & Industrial (C&I) Sector				
C&I Electric[21]				
Incentives & Services	$25,128,937	$31,918,000	$25,306,088	$50,435,025
Program Implementation	$705,788	$390,000	$196,847	$902,635
Total C&I Electric Budget	**$25,834,725**	**$32,308,000**	**$25,502,935**	**$51,337,660**
C&I Upstream Lighting				
Incentives & Services	$5,996,612	$3,968,000	$5,162,051	$11,158,663
Program Implementation	$689,335	$510,000	$488,766	$1,178,101
Total C&I Upstream Lighting Budget	**$6,685,947**	**$4,478,000**	**$5,650,817**	**$12,336,764**
Small-Medium Business Electric[22]				
Incentives & Services	$31,795,871	$16,562,000	$22,845,630	$54,641,501
Program Implementation	$6,137,627	$2,694,000	$3,544,086	$9,681,713
Total Small-Medium Business Electric Budget	**$37,933,498**	**$19,256,000**	**$26,389,716**	**$64,323,214**
Residential Sector				
Marketplace Electric				
Incentives & Services	$926,182	$661,000	$2,563,008	$3,489,190
Program Implementation	$972,562	$1,784,000	$158,536	$1,131,098
Total Marketplace Electric Budget	**$1,898,744**	**$2,445,000**	**$2,721,544**	**$4,620,288**
Pilots Electric				
Incentives & Services	$534,715	$1,388,899	$212,300	$747,015
Program Implementation	$37,034	$595,243	$281,200	$318,234
Total Pilots Electric Budget	**$571,749**	**$1,984,142**	**$493,500**	**$1,065,249**
Residential Electric				

[21] C&I electric includes the Self Direct Program which was closed at the end of 2019. While the program is no longer actively recruiting participants, the Company will continue reporting associated budgets and savings as it works with remaining participants to close out on-going projects by the end of 2020.

[22] In 2019, the Small-Medium Business program was rolled up into the Commercial portfolio and did not have its own line item

PORTFOLIO (NE:NY Electric EE)	Actual Spend 2019	Planned Spend 2020	Actual Spend 2020	Total Actual Spend 2019-2020
Incentives & Services	$6,454,880	$4,743,000	$2,534,028	$8,988,908
Program Implementation	$2,598,960	$722,000	$664,607	$3,263,567
Total Residential Electric Budget	**$9,053,840**	**$5,465,000**	**$3,198,635**	**$12,252,475**
Residential Home Energy Report				
Incentives & Services	$-	$-	$-	$-
Program Implementation	$6,877,298	$4,050,000	$1,046,488	$7,923,786
Total Residential Home Energy Report Budget	**$6,877,298**	**$4,050,000**	**$1,046,488**	**$7,923,786**
Retail Lighting				
Incentives & Services	$3,962,453	$5,903,000	$6,515,467	$10,477,920
Program Implementation	$2,363,748	$1,694,000	$2,832,772	$5,196,520
Total Retail Lighting Budget	**$6,326,201**	**$7,597,000**	**$9,348,239**	**$15,674,440**
Retailer Incentive				
Incentives & Services	$1,242,770	$2,290,000	$1,614,985	$2,857,755
Program Implementation	$177,571	$115,000	$141,930	$319,501
Total Retailer Incentive Budget	**$1,420,341**	**$2,405,000**	**$1,756,915**	**$3,177,256**
Smart Kids Electric				
Incentives & Services	$1,686,389	$2,029,000	$323,517	$2,009,906
Program Implementation	$462,063	$399,000	$97,533	$559,596
Total Smart Kids Electric Budget	**$2,148,452**	**$2,428,000**	**$421,050**	**$2,569,502**
Multifamily Sector				
Multifamily Electric				
Incentives & Services	$11,939,372	$17,001,000	$6,937,296	$18,876,668
Program Implementation	$4,656,911	$3,744,000	$1,418,861	$6,075,772
Total Multifamily Electric Budget	**$16,596,283**	**$20,745,000**	**$8,356,157**	**$24,952,440**
Portfolio Administration	$9,768,543	$13,764,000	$5,598,722	$15,367,265
Portfolio EM&V	$4,446,590	$6,945,000	$2,741,914	$7,188,504
Total Actual Portfolio Expenditure	**$129,562,211**	**$123,870,142**	**$93,226,632**	**$222,788,843**
Commission-Authorized Total Budget	**$159,178,000**	**$123,870,142**	**$123,870,142**	**$283,048,142**
Budget Remaining/Unspent Funds	**$29,615,788**		**$30,643,510**	**$60,259,299**

Table 1B: Actual vs. Planned Program Spend: Natural Gas Portfolio

PORTFOLIO (NE:NY Gas EE)	Actual Spend 2019	Planned Spend 2020	Actual Spend 2020	Total Actual Spend 2019-2020
Commercial & Industrial (C&I) Sector				
C&I Gas[23]				
Incentives & Services	$2,590,779	$8,615,000	$4,714,005	$7,304,784
Program Implementation	$110,436	$842,000	$54,186	$164,622
Total C&I Gas Budget	**$2,701,215**	**$9,457,000**	**$4,768,191**	**$7,469,406**
Commercial Kitchen Gas				
Incentives & Services	$-	$-	$390,075	$390,075
Program Implementation	$-	$-	$256,300	$256,300
Total Commercial Kitchen Gas Budget	**$-**	**$-**	**$646,375**	**$646,375**
Commercial Upstream Water Heating Gas				
Incentives & Services	$-	$-	$313,210	$313,210
Program Implementation	$-	$-	$229,927	$229,927
Total Commercial Upstream Water Heating Gas Budget	**$-**	**$-**	**$543,137**	**$543,137**
Small-Medium Business Gas				
Incentives & Services	$149,497	$168,000	$106,772	$256,269
Program Implementation	$80,439	$79,000	$62,348	$142,787
Total Small-Medium Business Gas Budget	**$229,936**	**$247,000**	**$169,120**	**$399,056**
Residential Sector				
Marketplace Gas				
Incentives & Services	$373,982	$96,000	$358,845	$732,827
Program Implementation	$-	$-	$49,577	$49,577
Total Marketplace Gas Budget	**$373,982**	**$96,000**	**$408,422**	**$782,404**
Pilots Gas				
Incentives & Services	$503,947	$170,616	$48,000	$551,947

[23]C&I gas includes the Self Direct Program which was closed at the end of 2019. While the program is no longer actively recruiting participants, the Company will continue reporting associated budgets and savings as it works with remaining participants to close out on-going projects by the end of 2020.

PORTFOLIO (NE:NY Gas EE)	Actual Spend 2019	Planned Spend 2020	Actual Spend 2020	Total Actual Spend 2019-2020
Program Implementation	$242,384	$73,121	$195,882	$438,266
Total Pilots Gas Budget	**$746,331**	**$243,737**	**$243,882**	**$990,213**
Residential Gas				
Incentives & Services	$1,153,737	$2,223,000	$805,530	$1,959,267
Program Implementation	$796,336	$1,560,000	$513,691	$1,310,027
Total Residential Gas Budget	**$1,950,073**	**$3,783,000**	**$1,319,221**	**$3,269,294**
Residential Home Energy Report Gas				
Incentives & Services	$-	$-	$-	$-
Program Implementation	$1,646,818	$562,000	$453,041	$2,099,859
Total Residential Home Energy Report Gas Budget	**$1,646,818**	**$562,000**	**$453,041**	**$2,099,859**
Residential Weatherization				
Incentives & Services	$-	$-	$975,747	$975,747
Program Implementation	$-	$-	$-	$-
Total Residential Weatherization Budget	**$-**	**$-**	**$975,747**	**$975,747**
Smart Kids Electric				
Incentives & Services	$326,689	$223,000	$63,111	$389,800
Program Implementation	$202,670	$125,000	$41,800	$244,470
Total Smart Kids Electric Budget	**$529,359**	**$348,000**	**$104,911**	**$634,270**
Multifamily Sector				
Multifamily Gas				
Incentives & Services	$10,368,835	$10,092,000	$4,400,490	$14,769,325
Program Implementation	$2,618,427	$2,000,000	$1,386,424	$4,004,851
Total Multifamily Gas Budget	**$12,987,262**	**$12,092,000**	**$5,786,914**	**$18,774,176**
Portfolio Administration	$1,376,105	$1,729,000	$660,064	$2,036,169
Portfolio EM&V	$716,377	$1,702,000	$1,015,207	$1,731,584
Total Actual Portfolio Expenditure	**$23,257,458**	**$30,259,737**	**$17,094,232**	**$40,351,690**
Commission-Authorized Total Budget	**$20,263,000**	**$30,259,737**	**$30,259,737**	**$50,522,737**
Budget Remaining/Unspent Funds	**$-**		**$13,165,505**	**$10,171,047**

Table 1C: Actual vs. Planned Program Spend: NYS Clean Heat

PORTFOLIO (NYS Clean Heat)	Actual Spend 2019	Planned Spend 2020	Actual Spend 2020	Total Actual Spend 2019-2020
Total Actual Portfolio Expenditure		$5,554,000	$4,762,159	$4,762,159
Commission-Authorized Total Budget		$18,037,338	$18,037,338	$18,037,338
Budget Remaining/Unspent Funds			$13,275,179	$13,275,179

Table 1D: Actual vs. Planned Program Spend: LMI

PORTFOLIO (LMI Electric)	Actual Spend 2019	Planned Spend 2020	Actual Spend 2020	Total Actual Spend 2019-2020
Incentives and Services		$4,727,588	$3,100,540	$3,100,540
Program Implementation		$1,951,636	$1,898,120	$1,898,120
Total LMI Budget		$6,679,224	$4,998,660	$4,998,660
Portfolio Administration		$512,000	$512,000	$512,000
Portfolio EM&V		$288,000	$288,000	$288,000
Total Actual Portfolio Expenditure		$7,479,224	$5,798,000	$5,798,000
Commission-Authorized Total Budget		$7,479,224	$7,479,224	$7,479,224
Budget Remaining/Unspent Funds			$1,618,224	$1,618,224

PORTFOLIO (LMI Gas)	Actual Spend 2019	Planned Spend 2020	Actual Spend 2020	Total Actual Spend 2019-2020
Incentives and Services		$2,548,000	$2,267,270	$2,267,270
Program Implementation		$1,295,000	$1,120,790	$1,120,790
Total LMI Budget		$5,138,000	$3,388,060	$3,388,060
Portfolio Administration		$240,000	$240,000	$240,000
Portfolio EM&V		$360,000	$360,000	$360,000
Total Actual Portfolio Expenditure		$4,443,000	$3,988,060	$3,988,060
Commission-Authorized Total Budget		$4,443,000	$4,443,000	$4,443,000
Budget Remaining/Unspent Funds			($454,940)	($454,940)

Table 2A: Forecast Program Planned Spend and Budgets: Electric Portfolio

PORTFOLIO (NE:NY Electric EE)	Planned Spend 2021	Planned Spend 2022	Planned Spend 2023	Planned Spend 2024	Planned Spend 2025
Commercial & Industrial (C&I) Sector					
C&I Electric[24]					
Incentives & Services	$41,780,593	$50,097,538	$63,585,393	$72,197,865	$86,432,790
Program Implementation	$385,824	$476,192	$817,686	$1,142,839	$1,597,279
Total C&I Program Budget	**$42,166,417**	**$50,573,730**	**$64,403,079**	**$73,340,704**	**$88,030,069**
C&I Upstream Lighting Electric					
Incentives & Services	$4,549,500	$5,065,314	$3,993,000	$3,096,450	$2,273,400
Program Implementation	$252,000	$288,798	$308,000	$294,000	$252,000
Total C&I Upstream Lighting Program Budget	**$4,801,500**	**$5,354,112**	**$4,301,000**	**$3,390,450**	**$2,525,400**
SMB Electric					
Incentives & Services	$39,853,597	$41,802,470	$54,600,527	$63,373,713	$72,121,390
Program Implementation	$3,660,631	$3,952,225	$6,983,929	$9,978,011	$13,256,850
Total SMB Electric Program Budget	**$43,514,228**	**$45,754,694**	**$61,584,457**	**$73,351,724**	**$85,378,241**
Westchester P4P Electric					
Incentives & Services	$-	$-	$-	$-	$-
Program Implementation	$-	$-	$-	$-	$-
Total Westchester P4P Electric Program Budget	**$-**	**$-**	**$-**	**$-**	**$-**
Residential					
Marketplace Electric					
Incentives & Services	$3,075,627	$3,424,336	$2,952,778	$2,743,724	$2,835,688
Program Implementation	$635,061	$727,795	$849,037	$971,110	$1,171,730
Total Marketplace Electric Program Budget	**$3,710,688**	**$4,152,131**	**$3,801,815**	**$3,714,834**	**$4,007,418**
Pilots Electric					
Incentives & Services	$1,040,626	$1,158,610	$999,060	$928,328	$959,443
Program Implementation	$654,410	$749,970	$874,906	$1,000,698	$1,207,431
Total Pilots Electric Program Budget	**$1,695,036**	**$1,908,580**	**$1,873,966**	**$1,929,026**	**$2,166,875**
Residential Electric					

[24] See footnote 20.

PORTFOLIO (NE:NY Electric EE)	Planned Spend 2021	Planned Spend 2022	Planned Spend 2023	Planned Spend 2024	Planned Spend 2025
Incentives & Services	$991,964	$1,104,432	$952,342	$884,918	$914,578
Program Implementation	$733,648	$840,779	$980,843	$1,121,867	$1,353,632
Total Residential Program Budget	**$1,725,613**	**$1,945,211**	**$1,933,186**	**$2,006,784**	**$2,268,210**
Residential Home Energy Report Electric					
Incentives & Services	$-	$-	$-	$-	$-
Program Implementation	$673,390	$771,722	$900,281	$1,029,722	$1,242,451
Total Residential Home Energy Report Program Budget	**$673,390**	**$771,722**	**$900,281**	**$1,029,722**	**$1,242,451**
Retail Lighting Electric					
Incentives & Services	$11,463,568	$12,763,287	$7,055,999	$3,821,513	$864,000
Program Implementation	$2,520,000	$2,887,982	$2,160,000	$1,440,000	$1,964,017
Total Retail Lighting Program Budget	**$13,983,568**	**$15,651,269**	**$9,215,999**	**$5,261,513**	**$2,828,017**
Retailer Incentive Electric					
Incentives & Services	$2,729,906	$3,039,418	$2,620,866	$2,435,312	$2,516,938
Program Implementation	$44,368	$50,847	$59,317	$67,845	$81,862
Total Retailer Incentive Electric Program Budget	**$2,774,274**	**$3,090,265**	**$2,680,183**	**$2,503,157**	**$2,598,799**
Smart Kids Electric					
Incentives & Services	$2,563,698	$2,490,667	$1,840,994	$1,495,618	$1,281,088
Program Implementation	$371,656	$371,656	$371,656	$371,656	$371,656
Total Smart Kids Electric Program Budget	**$2,935,354**	**$2,862,323**	**$2,212,650**	**$1,867,273**	**$1,652,744**
Multifamily Sector					
Multifamily Electric					
Incentives & Services	$14,222,200	$14,917,677	$14,085,216	$17,983,264	$25,737,321
Program Implementation	$1,554,572	$1,678,404	$2,143,987	$3,369,450	$5,629,830
Total Multifamily Electric Program Budget	**$15,776,772**	**$16,596,081**	**$16,229,203**	**$21,352,714**	**$31,367,151**
Portfolio Administration	**$13,697,466**	**$15,703,278**	**$17,420,072**	**$18,502,364**	**$20,690,352**
Portfolio EM&V	**$3,419,325**	**$3,817,153**	**$4,251,774**	**$5,339,750**	**$6,275,788**
Total Planned Portfolio Budget	**$150,873,631**	**$168,180,548**	**$190,807,664**	**$213,590,016**	**$251,031,514**

PORTFOLIO (NE:NY Electric EE)	Planned Spend 2021	Planned Spend 2022	Planned Spend 2023	Planned Spend 2024	Planned Spend 2025
Commission-Authorized Total Budget	**$150,873,631**	**$168,180,548**	**$190,807,664**	**$213,590,016**	**$251,031,514**

Table 2B: Forecast Program Planned Spend and Budgets: Gas Portfolio

PORTFOLIO (NE:NY Gas EE)	Planned Spend 2021	Planned Spend 2022	Planned Spend 2023	Planned Spend 2024	Planned Spend 2025
Commercial & Industrial (C&I) Sector					
C&I Gas[25]					
Incentives & Services	$9,443,958	$10,742,229	$12,120,949	$13,823,166	$15,503,595
Program Implementation	$188,817	$214,774	$239,454	$266,732	$291,695
Total C&I Program Budget	**$9,632,775**	**$10,957,003**	**$12,360,404**	**$14,089,897**	**$15,795,290**
Commercial Kitchen Gas					
Incentives & Services	$400,756	$478,045	$558,457	$632,757	$706,680
Program Implementation	$630,000	$751,500	$867,460	$960,013	$1,045,425
Total Commercial Kitchen Program Budget	**$1,030,756**	**$1,229,545**	**$1,425,917**	**$1,592,770**	**$1,752,105**
Commercial Upstream Water Heating Gas					
Incentives & Services	$678,481	$809,331	$945,470	$1,071,260	$1,196,412
Program Implementation	$864,000	$1,030,629	$1,189,659	$1,316,590	$1,433,726
Total Commercial Upstream Water Heating Program Budget	**$1,542,481**	**$1,839,960**	**$2,135,129**	**$2,387,850**	**$2,630,138**
SMB Gas					
Incentives & Services	$142,489	$169,969	$198,559	$224,976	$251,260
Program Implementation	$180,000	$214,714	$247,846	$274,290	$298,693
Total SMB Program Budget	**$322,489**	**$384,683**	**$446,405**	**$499,266**	**$549,953**
Westchester P4P Gas					
Incentives & Services	$-	$-	$-	$-	$-
Program Implementation	$-	$-	$-	$-	$-
Total Westchester P4P Program Budget	**$-**	**$-**	**$-**	**$-**	**$-**

[25] See footnote 22.

PORTFOLIO (NE:NY Gas EE)	Planned Spend 2021	Planned Spend 2022	Planned Spend 2023	Planned Spend 2024	Planned Spend 2025
Residential Sector					
Marketplace Gas					
Incentives & Services	$221,702	$264,459	$308,944	$350,047	$390,942
Program Implementation	$231,648	$276,323	$318,961	$352,993	$384,398
Total Market Place Program Budget	**$453,350**	**$540,782**	**$627,905**	**$703,040**	**$775,340**
Pilots Gas					
Incentives & Services	$376,560	$449,182	$524,739	$594,553	$664,013
Program Implementation	$1,629,261	$1,943,476	$2,243,363	$2,482,717	$2,703,604
Total Pilot Program Budget	**$2,005,820**	**$2,392,657**	**$2,768,102**	**$3,077,271**	**$3,367,617**
Residential Gas					
Incentives & Services	$447,757	$534,110	$623,954	$706,968	$789,561
Program Implementation	$708,120	$844,686	$975,025	$1,079,055	$1,175,058
Total Residential Program Budget	**$1,155,877**	**$1,378,797**	**$1,598,979**	**$1,786,023**	**$1,964,619**
Residential Home Energy Report Gas					
Incentives & Services	$-	$-	$-	$-	$-
Program Implementation	$414,293	$494,192	$570,448	$631,312	$687,480
Total Residential Home Energy Report Program Budget	**$414,293**	**$494,192**	**$570,448**	**$631,312**	**$687,480**
Residential Weatherization					
Incentives & Services	$484,345	$577,754	$674,939	$764,736	$854,078
Program Implementation	$-	$-	$-	$-	$-
Total Residential Weatherization Budget	**$484,345**	**$577,754**	**$674,939**	**$764,736**	**$854,078**
Smart Kids Gas					
Incentives & Services	$297,453	$297,453	$301,036	$308,204	$316,088
Program Implementation	$196,968	$196,968	$196,968	$196,968	$196,968
Total Smart Kids Program Budget	**$494,421**	**$494,421**	**$498,005**	**$505,172**	**$513,057**
Multifamily Sector					
Multifamily Gas					

PORTFOLIO (NE:NY Gas EE)	Planned Spend 2021	Planned Spend 2022	Planned Spend 2023	Planned Spend 2024	Planned Spend 2025
Incentives & Services	$6,837,518	$8,156,184	$9,528,150	$10,795,818	$5,208,234
Program Implementation	$3,138,615	$3,743,920	$4,321,624	$4,782,718	$12,057,061
Total Multifamily Program Budget	$9,976,134	$11,900,104	$13,849,773	$15,578,536	$17,265,295
Portfolio Administration	**$894,684**	**$1,765,406**	**$2,529,393**	**$2,335,158**	**$2,568,264**
Portfolio EM&V	**$2,245,695**	**$1,908,050**	**$1,713,831**	**$2,317,289**	**$2,568,458**
Total Planned Portfolio Budget	**$30,653,120**	**$35,863,355**	**$41,199,231**	**$46,268,320**	**$51,291,695**
Commission-Authorized Total Budget	**$28,020,018**	**$33,230,253**	**$38,566,129**	**$43,635,218**	**$48,658,593**
Budget Remaining/Unspent Funds					

Table 2C: Forecast Program Planned Spend and Budgets: NYS Clean Heat

PORTFOLIO (NYS Clean Heat)	Planned Spend 2021	Planned Spend 2022	Planned Spend 2023	Planned Spend 2024	Planned Spend 2025
Total Actual Program Expenditure	$31,783,570	$38,539,486	$45,478,667	$51,181,430	$55,570,524
Commission-Authorized Total Budget	$29,128,534	$35,884,450	$42,823,631	$48,526,394	$52,915,488
Budget Remaining/Unspent Funds					

Table 2D: Forecast Program Planned Spend and Budgets: LMI

PORTFOLIO (LMI Electric)	Planned Spend 2021	Planned Spend 2022	Planned Spend 2023	Planned Spend 2024	Planned Spend 2025
Incentives and Services	$372,541	$372,541	$372,541	$372,541	$372,541
Program Implementation	$32,395	$32,395	$32,395	$32,395	$32,395
Total LMI Budget	**$404,936**	**$404,936**	**$404,936**	**$404,936**	**$404,936**
Portfolio Administration	$387,235	$394,753	$402,647	$410,935	$419,638
Portfolio EM&V	$217,820	$222,048	$226,489	$231,151	$236,047
Total Actual Portfolio Expenditure					
Commission-Authorized Total Budget	**$5,863,662**	**$7,552,448**	**$9,649,673**	**$11,738,531**	**$14,923,397**

PORTFOLIO (LMI Electric)	Planned Spend 2021	Planned Spend 2022	Planned Spend 2023	Planned Spend 2024	Planned Spend 2025
Budget Remaining/Unspent Funds					

PORTFOLIO (LMI Gas)	Planned Spend 2021	Planned Spend 2022	Planned Spend 2023	Planned Spend 2024	Planned Spend 2025
Incentives and Services	$413,905	$413,905	$413,905	$413,905	$413,905
Program Implementation	$26,419	$26,419	$26,419	$26,419	$26,419
Total LMI Budget	$440,325	$440,325	$440,325	$440,325	$440,325
Portfolio Administration	$366,170	$378,290	$391,017	$404,380	$418,411
Portfolio EM&V	$549,254	$567,435	$586,526	$606,570	$627,617
Total Actual Portfolio Expenditure					
Commission-Authorized Total Budget	$13,681,878	$17,622,380	$22,515,904	$27,389,906	$34,821,259
Budget Remaining/Unspent Funds					

Table 3A: Actual vs. Planned Program Savings: Electric

PORTFOLIO (NE:NY Electric EE)	Actual Savings 2019	Planned Savings 2020	Actual Savings 2020	Total Actual Savings 2019-2020
Commercial & Industrial (C&I) Sector				
C&I Electric[26]				
MWh	109,904	78,337	58,836	168,740
C&I Upstream Lighting				
MWh	50,898	47,827	40,776	91,674
Small-Medium Business Electric				-
MWh	102,331	46,690	53,687	156,018
Residential Sector				-
Marketplace Electric				-
MWh	12,389	6,604	19,658	32,047
Pilots Electric				-
MWh	0	0	481	481
Residential Electric				-
MWh	10,814	7,516	5,190	16,004

[26]See footnote 20.

PORTFOLIO (NE:NY Electric EE)	Actual Savings 2019	Planned Savings 2020	Actual Savings 2020	Total Actual Savings 2019-2020
Residential Home Energy Report				-
MWh	77,164	30,000	41,904	119,068
Retail Lighting				-
MWh	116,659	73,650	187,908	304,567
Retailer Incentive				-
MWh	3,309	3,416	1,712	5,021
Smart Kids Electric				-
MWh	10,649	10,111	1,383	12,032
Multifamily Sector				-
Multifamily Electric				-
MWh	47,298	44,067	10,708	58,006
Total Portfolio				-
MWh	541,415	348,218	422,245	963,660

Table 3B: Actual vs. Planned Program Savings: Gas

PORTFOLIO (NE:NY Gas EE)	Actual Savings 2019	Planned Savings 2020	Actual Savings 2020	Total Actual Savings 2019-2020
Commercial & Industrial (C&I) Sector				
C&I Gas[27]				
MMBtu	113,094	287,300	85,798	198,892
Commercial Kitchen Gas				-
MMBtu	0	0	12,621	12,621
Commercial Upstream Water Heating				-
MMBtu	0	0	16,711	16,711
Small-Medium Business Gas				-
MMBtu	10,184	10,000	5,497	15,681
Residential Sector				-
Marketplace Gas				-
MMBtu	10,863	5,232	9,404	20,267
Pilots Gas				-

[27]See footnote 22.

PORTFOLIO (NE:NY Gas EE)	Actual Savings 2019	Planned Savings 2020	Actual Savings 2020	Total Actual Savings 2019-2020
MMBtu	0		1,852	1,852
Residential Gas				-
MMBtu	25,048	66,000	20,693	45,741
Residential Weatherization				-
MMBtu	0		4,374	4,374
Residential Home Energy Report				-
MMBtu	83,734	53,045	41,990	125,724
Smart Kids Gas				-
MMBtu	15,470	19,727	6,726	22,196
Multifamily Sector				-
Multifamily Gas				-
MMBtu	339,890	334,921	92,995	432,885
Total Portfolio				-
MMBtu	**598,283**	**776,225**	**298,661**	**896,944**

Table 3C: Actual vs. Planned Program Savings: NYS Clean Heat

PORTFOLIO (NYS Clean Heat)	Actual Savings 2019	Planned Savings 2020	Actual Savings 2020[28]	Total Actual Savings 2019-2020
Total Portfolio				
MMBtu (Primary)		23,546	61,585	61,585

Table 3D: Actual vs. Planned Program Savings: LMI

PORTFOLIO (LMI Electric)	Actual Savings 2019	Planned Savings 2020	Actual Savings 2020	Total Actual Savings 2019-2020
Total Portfolio				
MWh		29,000	38,964	38,964

PORTFOLIO (LMI Gas)	Actual Savings 2019	Planned Savings 2020	Actual Savings 2020	Total Actual Savings 2019-2020

[28]Con Edison utilized two different deemed savings approach in Q1 2020 to accommodate projects that were transferred to the utility as part of the Statewide Clean Heat program. Subsequently, the TRM was updated on February 14, 2020 (with an effective date two weeks after filing) to reflect a savings methodology consistent with a fuel neutral baseline.

Total Portfolio				
MMBtu		40,834	56,844	56,844

Table 4A: Forecast Program Savings Plans: Electric

PORTFOLIO (NE:NY Electric EE)	**Planned Savings 2021**	**Planned Savings 2022**	**Planned Savings 2023**	**Planned Savings 2024**	**Planned Savings 2025**
Commercial & Industrial (C&I) Sector					
C&I Electric[29]					
MWh	62,862	77,586	133,226	186,203	260,245
C&I Upstream Lighting					
MWh	37,800	43,320	46,200	44,100	37,800
Small-Medium Business Electric					
MWh	67,121	70,550	124,051	178,557	242,077
Westchester P4P Electric					
MWh	74	3,766	7,385	7,311	3,619
Residential Sector					
Marketplace Electric					
MWh	14,000	16,044	18,717	21,408	25,831
Pilots Electric					
MWh	2,800	3,209	3,743	4,282	5,166
Residential Electric					
MWh	4,900	5,616	6,551	7,493	9,041
Residential Home Energy Report					
MWh	40,000	45,841	53,478	61,166	73,803
Retail Lighting					
MWh	175,000	200,554	150,000	100,000	60,000
Retailer Incentive					
MWh	2,650	3,037	3,543	4,052	4,889
Smart Kids Electric					
MWh	10,000	10,000	10,000	10,000	10,000
Multifamily Sector					

[29]See footnote 20.

PORTFOLIO (NE:NY Electric EE)	Planned Savings 2021	Planned Savings 2022	Planned Savings 2023	Planned Savings 2024	Planned Savings 2025
Multifamily Electric					
MWh	21,000	22,673	28,962	45,516	76,051
Total Portfolio					
MWh	**438,207**	**502,196**	**585,856**	**670,089**	**808,522**

Table 4B: Forecast Program Savings Plans: Gas

PORTFOLIO (NE:NY Gas EE)	Planned Savings 2021	Planned Savings 2022	Planned Savings 2023	Planned Savings 2024	Planned Savings 2025
Commercial & Industrial (C&I) Sector					
C&I Gas[30]					
MMBtu	336,071	382,271	426,199	474,749	519,181
Commercial Kitchen Gas					
MMBtu	35,000	41,750	48,192	53,334	58,079
Commercial Upstream Water Heating					
MMBtu	56,000	66,800	77,108	85,335	92,927
Small-Medium Business Gas					
MMBtu	17,500	20,875	24,096	26,667	29,040
Westchester P4P Gas					
MMBtu	148	7,555	14,814	14,666	7,259
Residential Sector					
Marketplace Gas					
MMBtu	14,000	16,700	19,277	21,334	23,232
Pilots Gas					
MMBtu	17,500	20,875	24,096	26,667	29,040
Residential Gas					
MMBtu	32,782	39,104	45,138	49,954	54,399
Residential Weatherization					
MMBtu	9,000	10,736	12,392	13,714	14,935

[30]See footnote 22.

PORTFOLIO (NE:NY Gas EE)	Planned Savings 2021	Planned Savings 2022	Planned Savings 2023	Planned Savings 2024	Planned Savings 2025
Residential Home Energy Report					
MMBtu	50,000	59,643	68,846	76,192	82,970
Smart Kids Gas					
MMBtu	17,000	17,000	17,000	17,000	17,000
Multifamily Sector					
Multifamily Gas					
MMBtu	225,760	265,393	303,195	336,010	373,935
Total Portfolio					
MMBtu	810,762	948,702	1,080,354	1,195,622	1,301,996

Table 4C: Forecast Program Savings Plans: NYS Clean Heat

PORTFOLIO (NYS Clean Heat)	Planned Savings 2021	Planned Savings 2022	Planned Savings 2023	Planned Savings 2024	Planned Savings 2025
Total Portfolio					
MMBtu (Primary)	121,983	153,601	189,208	222,194	251,429

Table 4D: Forecast Program Savings Plans: LMI

PORTFOLIO (LMI Electric)	Planned Savings 2021	Planned Savings 2022	Planned Savings 2023	Planned Savings 2024	Planned Savings 2025
Total Portfolio					
MWh	10,171	13,100	16,738	20,361	25,885

PORTFOLIO (LMI Gas)	Planned Savings 2021	Planned Savings 2022	Planned Savings 2023	Planned Savings 2024	Planned Savings 2025
Total Portfolio					
MMBtu	126,661	163,140	208,442	253,563	322,359

Evaluation, Measurement and Verification

The Evaluation, Measurement, and Verification ("EM&V") efforts and associated budgets are intended to serve all SEEP programs consistent with regulatory guidance to continually improve our processes and estimates of program impact. The Company's EM&V services includes three core activity types: Quality Assurance/Quality Control ("QA/QC"), Measurement & Verification ("M&V"), and Evaluation. Collectively, the proposed 2020-2025 EM&V budget will be distributed so that each activity serves to complement and inform future efforts and provide more immediate feedback by employing advanced EM&V technologies and methods.

Evaluation

Evaluation activities follow the methods and requirements as outlined in the Evaluation, Measurement & Verification Guidance, [31] dated November 1, 2016 as well as the Gross Savings Verification Guidance, [32] dated August 23, 2019.

Con Edison intends to continue conducting strategic and targeted impact and process evaluation activities, with a focus on establishing initial realization rates for all existing programs by the end of 2023.

Impact Evaluation

The primary goal of an impact evaluation is to determine the verified gross savings ("VGS") realization rate ("RR") through a Gross Savings Analysis ("GSA"). The GSA is only one component of an impact evaluation, which also seeks to provide more transparent, granular, and actionable feedback to identify opportunities to improve estimation methods and the persistence of the program's savings for future years.

At the start of each impact evaluation, Con Edison's team of subject matter experts collaborates to identify the focus of the required evaluation research. This may include:

- assessing program-specific realization rates for energy (annual and lifetime) and demand savings;
- segmenting savings by measure, building type, location, time of use;

[31] Office of Clean Energy, CE-05: Evaluation, Measurement & Verification Guidance, November 1, 2016, http://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/255ea3546df802b585257e38005460f9/$FILE/CE-05-EMV%20Guidance%20Final%20%2011-1-2016.pdf

[32] Office of Clean Energy, CE-08: Gross Savings Verification Guidance, August 23, 2019, http://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/255ea3546df802b585257e38005460f9/$FILE/GSVG%208_23_2019.FINAL.pdf

- incorporating advanced M&V through real-time evaluation using Advanced Metering Infrastructure ("AMI") as it becomes available;
- informing future Technical Resource Manual ("TRM") updates;[33]
- confirming and updating estimates on assumed install rates for self-install programs;
- assessing target market and market saturation estimates through baseline studies; and
- informing cost effectiveness.

Process Evaluation

Process evaluations are generally used to assess and analyze program operations for new programs, modified programs, or those in a pilot phase of development. Process evaluations are also effective at diagnosing problems in programs that are underperforming or experiencing operational challenges. Because process evaluations most often examine program or portfolio operations, they can identify ways to make program or portfolio enhancements and improvements that reduce operating costs, expedite delivery, improve satisfaction, and fine-tune objectives. Selective research activities may also take place for existing programs that do not require a full process evaluation or otherwise are cross-functional or inter-territorial as appropriate and recognized by the EM&V guidance documents.

Measurement & Verification

M&V plays an increasingly integral role in the activities of energy efficiency programs, not only in verifying the savings associated with a particular measure or application, but also in better characterizing the benefits attributable to new programs and measures. Such activities provide data for (1) improving accuracy of deemed savings assumptions, (2) estimation of operational and behavioral influences, and (3) identifying opportunities for new technologies and services for inclusion in program portfolios.

All M&V work will meet and comply with the International Performance Measurement and Verification Protocol ("IPMVP") standard. The selected IPMVP option will depend on the measures included within a project and/or historical performance of the measure. Each project selected will receive a comprehensive M&V plan that will include:

- Engineering desk review/preliminary analysis of project savings
- M&V approach (e.g., IPMVP option, Uniform Methods Project protocol, pre/post work, data logging)
- Sampling methodology

[33] The TRM provides a standardized and transparent approach for measuring program energy savings across New York State's energy efficiency programs.
http://www3.dps.ny.gov/W/PSCWeb.nsf/All/72C23DECFF52920A85257F1100671BDD?OpenDocument

Site pre-inspections will typically collect data to verify:

- Existing equipment being replaced
- Equipment operation (e.g., hours of operation, age, primary compared to standby)
- Any other information needed to verify program eligibility and establish a baseline

Site post-inspections will typically collect data to verify:

- Equipment installation (e.g., quantities, nameplate)
- Equipment operation (e.g., hours of operation, primary versus standby)
- Any other information needed to verify reported savings

The Company intends to use M&V data to enhance impact evaluations when possible. The data will be used to either supplement the impact evaluation to provide more accurate results, or to offset required impact data to reduce costs. The M&V scope will also accommodate the framework of activities, as listed below:

- **Real-Time Continuous Program Design**: M&V will allow for proper quantification of savings attributable to measures which were previously based upon deemed savings and engineering judgment. Furthermore, the information attained will be available earlier than a typical evaluation study and may be used to inform the program and its managers for interim adjustments of savings, incentives, and overall measure strategy. M&V will be conducted on a sample of measures representative of the number of projects and types of technologies as well as technologies deemed to be highly uncertain as to their impact for SEEP programs.

- **Technology Integration**: M&V will allow for the integration of new emerging energy efficiency technologies through pilots and M&V-specific studies. M&V will also allow for the development of improved calculations for deemed savings within the TRM.

    - Focus on pilot studies to determine savings potential and inclusion in future programs will allow for a more robust and adaptable suite of measures and associated strategies in a quickly evolving market.

    - M&V will be used to garner more accurate data on TRM measures which are most prevalent or most impactful in Company programs and operate in Con Edison's territory.

- **New Technologies:** EM&V is continuously monitoring industry developments and customers' applications to identify new and emerging technologies that align with program goals. Through a series of new pilot initiatives and associated EM&V activities, the Company intends to promote the wider adoption of new technologies. All technologies and design strategies

requiring a custom evaluation will be the subject of M&V until sufficient information has been gathered to inform future evaluation by either the Company's engineering staff or evaluation contractors.

Con Edison currently retains independent engineering consulting firms to complete M&V related work. This allows the Company to respond more quickly to the needs of customers, market partners and aggregators, and to respond to the variety of unique projects the Company encounters in our service territory.

Quality Assurance/Quality Control

As the Company develops the means and methods for each program to meet objectives, QA/QC work serves as an additional safeguard to maintain work integrity and check that program funds are used appropriately. An independent third-party conducts assessment of the accuracy of the anticipated results and compliance with program rules. Utilizing third-party verification for all work, including that performed by contractors, reduces the likelihood of data inconsistencies, under- or over-reported savings, customer complaints, or potential fraud.

QA/QC site work also provides an opportunity to collect additional data that supplements the process and/or impact evaluations (e.g., customer surveys, operating hour verifications). The Company is working to facilitate new and more stringent QA/QC protocols across its efficiency program portfolio within a newly established Quality Management System ("QMS"). The QMS process will employ methods consistent with traditional evaluation practices and where practical may serve as the means by which to collect data for the purpose of evaluation efforts.

Gross Savings Analysis Reports

In the past year, Con Edison filed 13 GSA Reports. The following summarizes each report.

Con Edison Retail Products Platform (RPP) Evaluation: 2018

The Retailer Incentive Program is a Con Edison program focused on driving sales of efficient products at retail locations. Originally, the program followed the national ENERGY STAR® Retail Products Platform ("ESRPP") model, as a nationally coordinated midstream program aimed at influencing retailers to sell, promote, and increase demand for more energy efficient models of home appliances and consumer electronics. Con Edison published a GSA on the Retailer Incentive Program in Q4 2019. The evaluation covered the 2018 program year.

The evaluation focused on market transformation and calculating the uplift of the program. The study found that the Program had begun to influence the market in a manner consistent with program theory, but only for some product categories and that it might require additional time to influence in this manner. The results showed market uplift for advanced refrigerators (56%) and basic-tiered freezers

(95%). No uplift was identified for other measures. The evaluation recommended Con Edison coordinate with other participating utilities to create more consistent portal data QA/QC.

Upon understanding the results, Con Edison determined that it was cost-effective to continue offering advanced-tiered refrigerators using the same program logic. However, for the rest of the products, Con Edison took a deeper look at the effectiveness of this type of model. The program team discontinued all other products they had been incenting, other than air conditioners, and added smart thermostats and dehumidifiers to the program. In addition, they changed the structure of the program from a market transformation program, to a direct-buydown resource acquisition program. Customers now receive a direct discount on air conditioners, smart thermostats and dehumidifiers; the retailers still receive a small incentive to cover administrative costs associated with participating. These changes were made April 1, 2020, but due to COVID-19 came into effect on June 8, 2020.

New Movers Energy Efficiency Program: Fiscal Years 2017-2018

Con Edison's New Homeowners program (also known as the New Movers program) sought to reduce energy consumption in residential homes by providing kits of energy efficient products directly to customers who have recently opened new electric and/or natural gas accounts. The report presents the verified savings estimates for the Con Edison New Movers program for program years 2017 and 2018 and summarizes key results across the two-year period. Con Edison published the GSA in Q1 2020.

The evaluation focused on confirming the TRM was applied appropriately, surveying customers to determine the in-service rate for the measures sent in the kit and conducting a literature review to compare this kit program's savings to other programs across the country. The results were in-service rates ranging from 20% for bathroom faucet aerators to 55% for LED bulbs. Survey respondents did not have reliable responses to the fuel-type for their water heaters, so the evaluators did secondary research using NYSERDA's Baseline Study to come up with the expected gas and electric percentages. The evaluation recommended updating the assumed in-service rates and water heater fuel type assumptions. The program adopted these recommendations.

The other recommendations were largely focused on future evaluations of kit programs, including incentivizing survey responses, looking at net-to-gross savings, survey design modifications, and more research into expected useful life ("EUL"). The EUL fell within the range of the literature review but was at the higher end for LEDs and faucet aerators. These will be considered for the next program evaluation.

The program was in a pilot phase, and Con Edison changed the focus in 2020 from those who had recently moved to low-income customers within Con Edison service territory who are enrolled in the Low-Income Discount Program, rebranding as the Efficiency Starter program. As a result, the findings of this evaluation are no longer applicable to the new program design; the new LMI-focused

program is using these in-service rates until better information is available.

Smart Kids Energy Efficiency Program: Fiscal Years 2017-2018

Con Edison's Smart Kids Energy Efficiency program seeks to reduce energy consumption in residential homes by providing energy education and kits of energy-efficient products directly to 5th grade students. This report presents the verified savings estimates for the Con Edison Smart Kids Energy Efficiency Program for program years 2017 and 2018 and summarizes key results across the two-year period. The final Evaluation Report was filed in Q1 2020.

The evaluation focused on confirming the TRM was applied appropriately, surveying customers to determine the in-service rate for the measures sent in the kit and conducting a literature review to compare this kit program's savings to other kit programs across the country. This Smart Kids Program has initial VGS RRs (70% kWh, 107% kW, and 110% therms) from the impact evaluation of this program in 2018. The evaluation recommended updating the assumed in-service rates and water heater fuel type assumptions. The program adopted the following recommendations and will be using AP RRs of 100%:

- Measure in-service rates:
    - LED bulb (9-watt): 44%
    - Showerhead: 36%
    - Kitchen faucet aerator: 27%
    - Bath faucet aerator: 26%
- Water heater fuel type assumptions:
    - Natural gas: 65%
    - Electric: 8%

The other recommendations were largely focused on future evaluations of kit programs, including incentivizing survey responses, looking at net-to-gross savings, survey design modifications, and more research into EUL. The EUL fell within the range of the literature review but was at the higher end for LEDs and faucet aerators. These will be considered for the next program evaluation.

Residential HVAC – Impact Evaluation Final Report

Con Edison's Residential HVAC Program sought to reduce energy and gas consumption by offering midstream incentives on efficient electric and gas heating, ventilation, and cooling equipment. The program is marketed to and delivered through a trade ally network of HVAC distributors and contractors. The program is offered to residential, multifamily, and small business Con Edison electric and gas customers. This report presents the verified savings estimates for the Con Edison Residential HVAC program for program year 2018 and the final Evaluation Report was filed in Q1 2020.

The evaluation activities included tracking database review, project file review, and end user verification

surveys. The evaluation recommended that midstream data should include documentation of the transaction and end-user customer information in order to verify customer purchases and reduce evaluation risk. The program team has increased minimum customer data required for participation. Another recommendation was to update the TRM to account for the findings that the majority of mini-split heat pump customers have a heat pump and another heating source. During the finalization of this report, the TRM committee overhauled these heat pump measures and considered some of the concerns raised in this evaluation.

The Residential HVAC Program has initial VGS RRs (100% kWh, 99% kW, and 101% therms) from the impact evaluation of this program in 2018. In April 2020, the core program measure, heat pumps, were moved to the New York State Clean Heat Program. Additionally, the program stopped providing incentives for central air conditioners. The only remaining electric measure with an applicable RR is the blower fan with ECM (100% kWh). The gas HVAC program remains unchanged.

Residential Retail Lighting 2018 Program Evaluation

Con Edison's Retail Lighting Program seeks to reduce energy consumption by increasing market share of ENERGY STAR® LED lamps within the Con Edison service territory. Through coordination with manufacturers and retailers, Con Edison is making discounted ENERGY STAR® LED lamps available to its customers through Retailer and Food Bank distribution channels. This report presents the verified savings estimates for the Con Edison Retail Lighting Program for program year 2018 and is filed in Q3 2020.

The evaluation activities included a review of deemed savings applicable to the measure in the program, LED food bank distribution participant survey to estimate an in-service rate for this program, and database review and savings evaluation. The Retail Lighting Program has new VGS RRs (105% for kWh, 111% for kW) from the impact evaluation of this program in 2018 (*Residential Retail Lighting 2018 Program Evaluation*, filed in Q3 2020). Based on the independent evaluator's assessment of recommended programmatic changes and savings estimation approaches identified in this impact evaluation, the following AP RRs are identified:

- Retailer kWh (First-Year Annual and Lifetime): 100%
- Retailer kW: 100%
- Food Bank First-Year Annual kWh: 58%
- Food Bank Lifetime kWh: 74%
- Food Bank kW: 58%

These AP RRs are premised on the adopting the following evaluation recommendations at the program-level:

- Consumption HVAC Interaction Factor ($HVAC_c$): 0.060

- Demand HVAC Interaction Factor ($HVAC_d$): 0.125
- Updated Baseline Wattages for Reflector, Decorative, and Globe Categories

Due to differences in in-service rates ("ISRs") over time as identified in the evaluation, Food Bank bulbs should apply different RRs for first-year annual and for lifetime kWh. ISRs were not calculated for Retailer bulbs. As such, these bulbs should use the same RRs for annual and lifetime kWh.

Additionally, the independent evaluator recommended updating Hours of Use (HOU) to 2014 NMR Northeast Residential Lighting HOU Study values. This does not influence RRs but has been adopted, along with all other recommended changes, as of September 1, 2020. These implemented changes will continue to be effective until March 2021, or until new evaluation insights are available.

Residential Downstream Impact Evaluation Report

Con Edison's Residential Downstream Program sought to reduce energy consumption in residential homes by offering incentives for energy efficient electric and gas equipment and technologies. The report presents the verified savings estimates for the Con Edison Residential Downstream Program for program period Q1 2018 through Q2 2019. The final Evaluation Report was filed in Q3 2020.

The evaluation had two components: a prescriptive review of savings as compared to the NYS TRM and recommend improvements to the New York Technical Resource Manual (NY TRM) based on program savings and benchmarking against regional TRMs and other evaluation resources. This Residential Downstream Program had initial VGS RRs (96% kWh, 109% kW, and 125% therms) from the impact evaluation of this program. The main realization rate drivers were missing information in program tracking data, lack of default values in the TRM, and the TRM being incorrectly applied (*e.g.*, using an old version).

The evaluation recommended using the effective NYS TRM version based on project acquired date and to more rigorously track measures in program tracking database. The NY TRM recommendations were to update the TRM using the NYSERDA Residential Building Stock Assessment ("2019 RBSA") Draft Report, which is now published, since it provides more recent and accurate information on Con Edison's service territory housing stock and fuel characteristics for single family homes.

The program has been discontinued but recommendations are being considered for existing programs and the NY TRM recommendations will be incorporated where applicable.

Large C&I Program PY2017 Impact & Process Evaluation Report

The Con Edison Commercial & Industrial (C&I) Energy Efficiency Program offers incentives for energy efficient electric and gas equipment and technologies for commercial customers with electric accounts

over 100 kW average peak demand on a rolling 12-month basis and firm and interruptible[34] gas accounts, excluding multifamily buildings. This report presents the verified savings estimates for the C&I Program for the 2017 program year and summarizes key results across this period. The final Evaluation Report was filed in Q4 2019.

Impact evaluation activities were focused on calculating the electric and gas energy savings and peak demand reduction resulting from Con Edison's C&I Program. This evaluation found that the program's electric measures saved 78,937 MWh of energy (RR=92%), 12.28 MW demand (RR=80%), and the gas measures saved 612,114 therms (RR=74%). Key realization rate (RR) drivers include lack of documentation, inconsistent use of savings parameters, and use of the TRM for inapplicable measures.

As such, key recommendations from the evaluation included explaining and documenting assumptions and inputs not based on the TRM and expanding the use of custom analyses for measures that do not match specifics in the TRM. In response, the program has increased scrutiny during their documentation review process, including through instituting a standardized project file structure. They also started applying the custom analysis for measures that do not align well with the TRM calculations.

Large C&I Program PY2018 Impact Evaluation Report

The Con Edison Commercial & Industrial Energy Efficiency Program offers incentives for energy efficient electric and gas equipment and technologies for commercial customers with electric accounts over 100 kW average peak demand on a rolling 12-month basis and firm and interruptible[35] gas accounts, excluding multifamily buildings. This report presents the verified savings estimates for the C&I Program for the 2018 program year and summarizes key results across this period. The final Evaluation Report was filed in Q4 2019.

Impact evaluation activities were focused on calculating the electric and gas energy savings and peak demand reduction resulting from Con Edison's C&I Program, and on generating initial VGS RRs. These initial VGS RRs are applied retrospectively and prospectively, effective 2020, until completion of the next GSA. VGS RRs are as follow:

- Lighting kWh: 85%
- Lighting kW: 82%
- Non-Lighting Electric kWh: 75%
- Non-Lighting Electric kW: 133%
- Gas therms: 73%

These RRs reflect Con Edison-specific RRs, where available, and are used for both annual and lifetime

[34] Interruptible gas customers became eligible January 2020 with Commission Rate Plan Order
[35] *Id.*

savings reporting with concurrence by the evaluator.

Similar to the evaluation of the 2017 program year, this evaluation recommended enhancements to project documentation, savings calculations, and savings parameters to increase savings accuracy. One specific recommendation that has been implemented by the program was the development of calculation tools for common custom measures. Standardized savings methodologies now existing for elevator modernization projects, as well as for key gas measures such as steam trap replacement projects.

Home Energy Reports Program: 2018 Final Comprehensive Report

The Residential Home Energy Reports ("HER") Program motivates customers to use less energy and save money on monthly bills by providing customer-specific energy usage information, "neighbor" comparisons, and personalized energy saving advice. This program acts as another touchpoint with customers, allowing them to take control of their energy usage. An impact evaluation performed for the 2018 program year was conducted to calculate the electric and gas savings and peak energy reduction resulting from Con Edison's HER Program. The final Evaluation Report was filed in Q1 2020.

The HER Program has initial VGS RRs of 146% for kWh, 55% for kW, and 271% for therms from this impact evaluation. The initial VGS RR for kW will be applied retrospectively and prospectively, effective 2020, until completion of the next GSA.

Delivery of HER treatment was intermittent in 2018 and as such kWh and therm VGS RRs from this evaluation are not considered to be representative of 2020 performance. Given the high level of certainty in program savings for HER, as confirmed by the independent evaluator's verification of the program's randomized control trial, the following AP RRs were identified:

- kWh: 100%
- therms: 100%

In addition to these RRs, the evaluation recommended the broader incorporation of AMI data into demand analysis for the program, as well as increased engagement of customers through HERs, such as through enhanced promotion and marketing. The use of AMI data for HER analysis, as well as across the broader EEDM portfolio is actively being explored. Additionally, the 2020 HER program has started enhanced messaging to LMI customers.

Instant Lighting Incentive Program (ILIP) Evaluation Report

The Con Edison Instant Lighting Incentive Program ("ILIP") is a midstream lighting program through which commercial, small business, and multifamily customers receive instant incentives on eligible lighting products, such as ENERGY STAR®-certified and Design Lights Consortium-listed lamps, at the

distributor point of sale. This report presents the verified savings estimates for ILIP for the 2018 program year and summarizes key results across this period. The final Evaluation Report was filed in Q4 2019.

From this evaluation, ILIP has initial VGS RRs of 74% for kWh and 85% for kW. The evaluation recommended a series of changes at the program-level:

- HOU: 4,515
- Coincidence Factor (CF): 0.91
- Consumption HVAC Interaction Factor ($HVAC_c$): -0.045
- Demand HVAC Interaction Factor ($HVAC_d$): 0.160

These recommended changes were implemented and allowed for the use of the following AP RRs:

- kWh: 84%
- kW: 81%

Con Ed Multifamily Program: Program Year 2017 Impact Evaluation

The Con Edison Multifamily (MF) Energy Efficiency Program offers incentives for energy efficient electric and gas equipment and technologies. In general, residential buildings with five or more units are considered eligible. This report presents the verified savings estimates for the MF Program for the 2017 program year and summarizes key results across this period. The final Evaluation Report was filed in Q1 2020.

From this evaluation, the MF Program has initial VGS RRs of 38% for kWh (lighting), 37% for kW (lighting), and 39% for therms (EMS). No applicable RRs were determined for non-lighting and non-EMS measures within this program. The evaluation recommended a series of changes at the measure-level:

- Updated HOU for all lighting projects
- Updated baseline kW through prescriptive lighting fixture codes for all lighting projects
- An updated energy savings factor ("ESF") of 10% for all EMS projects
- An updated equivalent full load hours ("EFLH") of 724 hours per year for all EMS projects at pre-1979 high-rise multifamily buildings[36]

These changes were incorporated by the program, effective January 1, 2020. As such, the following AP RRs are being used:

[36] This recommendation comes directly from an expanded natural gas billing analysis activity conducted following the 2017 impact evaluation and discussed in more detail in the *Con Ed Multifamily Program: Expanded Natural Gas Billing Analysis* section below.

- Lighting kWh: 46%
- Lighting kW: 36%
- Energy Management System (EMS)[37] therms: 100%

Con Ed Multifamily Program: One-Pipe Steam Expanded Literature Review Findings

The Con Edison Multifamily Energy Efficiency Program offers incentives for energy efficient electric and gas equipment and technologies. In general, residential buildings with five or more units are considered eligible. This report documents a measure-specific evaluation of the MF Program's one-pipe steam (1PS) offering. The final Evaluation Report was filed in Q1 2020.

The results of the billing analysis performed on 1PS measures for program years 2017 and 2018 conducted as part of this evaluation indicated virtually no savings, despite significant cost and effort. The evaluators found that Con Edison is generally targeting what are regarded as the correct 1PS measures, but that each system must be assessed and treated comprehensively, as opposed to prescriptively. The evaluated program structure incentivized hardware installation, discouraged comprehensiveness, and lacks controls for follow-through.

Based on the conclusion of this evaluation that a prescriptive approach is not effective for 1PS systems, the program is no longer offering 1PS packages. As such, the initial VGS RR from this evaluation (20% for therms) is not applicable as of the 2020 program year.

Con Ed Multifamily Program: Expanded Natural Gas Billing Analysis

The Con Edison Multifamily Energy Efficiency Program offers incentives for energy efficient electric and gas equipment and technologies. In general, residential buildings with five or more units are considered eligible. This report documents an expanded evaluation of the energy management system ("EMS") measure. The final Evaluation Report was filed in Q1 2020.

This evaluation, conducted as a billing analysis of EMS measures for program years 2017 and 2018, supported the findings from the 2017 Impact Evaluation and provided further recommendations around EFLH. In response to this evaluation, the program adopted an updated EFLH of 724 hours per year for all EMS projects at pre-1979 high-rise multifamily buildings.

Activities and Expenditures

The following EM&V activities and expenditures lay out what is currently planned based on existing guidance and programs.

[37] For purposes of Verified Gross Savings, the Energy Management System and Advanced Boiler Control TRM measures should be considered equivalent.

Table 5A: Planned Activity Descriptions (Electric and Gas)

EM&V Activity	Activity Description
Commercial & Industrial – QA/QC Activities	On-site program inspections conducted by an independent third-party. Other activities include documentation reviews conducted by an independent third-party for consistency with program guidelines, accuracy of reported savings and to identify project-level deficiencies as well as inspections conducted by an independent third-party to verify program compliance and to identify project-level deficiencies. The Company is currently revamping protocols for this program.
Commercial Midstream Water Heating - QA/QC	Documentation reviews conducted by an independent third-party for consistency with program guidelines accuracy of reported savings and for compliance
Lighting Baseline Study (Research)	Creating standardized way of refreshing lighting market baseline, for core C&I, SMB and MF market sector programs
Multifamily - QA/QC	On-site/virtual inspections conducted by an independent third-party to verify program compliance and to identify project-level deficiencies
Small-Medium Business - QA/QC	On-site/virtual inspections conducted by an independent third-party to verify program compliance and to identify project-level deficiencies. Documentation reviews conducted by an independent third-party by sampling HVAC/custom projects from IC's invoice for verification of consistency with program guidelines, accuracy of reported savings and for compliance
Instant Lighting Incentive Program - QA/QC (External)	On-site/virtual inspections and/or documentation reviews conducted by an independent third-party to verify program compliance and to identify project-level deficiencies of Implementation Contractor's process. Additional QA/QC analysis conducted by an independent third-party by sampling projects from Q3 2019 to verify consistency with program guidelines, accuracy of reported savings and for compliance.
Instant Lighting Incentive Program - QA/QC (Internal)	On-site/virtual inspections and/or document reviews conducted by an independent third-party to verify program compliance and to identify project-level deficiencies
NPS Lower Westchester Geothermal Program- 2019 QA/QC Final Technical Reviews	Documentation reviews conducted by an independent third-party for consistency with program guidelines, accuracy of reported savings and to identify project-level deficiencies
NPS MF Energy Management & Ongoing Program 2019 QA/QC	On-site/virtual inspections conducted by an independent third-party to verify program compliance and to identify project-level deficiencies
NPS Bronx Residential - QA/QC	On-site/virtual inspections conducted by an independent third-party to verify program compliance and to identify project-level deficiencies

EM&V Activity	Activity Description
Commercial & Industrial Sector - 2018 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Commercial & Industrial Sector - 2023 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Residential Upstream HVAC - 2018 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Residential Upstream HVAC - Process Evaluation	Document how the program is operating relative to planning documents
Residential Upstream HVAC - 2019 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Residential - 2020 Impact Evaluation	Estimate adjusted gross energy and demand savings for residential measures without realization rates (electric measures: bulk recycling, pool pumps, and ECM circulator pumps; gas measures: boiler tune-ups)
Residential Sector Downstream - 2018/2019 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Residential Marketplace Program - 2020 Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas; create logic model for future market transformation potential
Multifamily Sector - 2017 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Multifamily Sector - Process Evaluation	Document program delivery, assess whether the program is serving its target market adequately, and identify recommendations for improvement
Multifamily Sector - 2018/2019 Prescriptive and Technology-Specific Reviews	Determine the accuracy of the program ex-ante savings as compared to the TRM measure characterizations, and develop methods for prescriptive calculation of key gas measures
Multifamily Sector - 2020 AP RR Impact Evaluation	Verify implementation of AP RR assumptions and estimate adjusted gross energy and demand savings for electricity and natural gas
Multifamily Sector - 2021 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas measures not covered by existing Multifamily Sector realization rates (evaluation will include NPS programs, such as NYCHA and WCHA)
Multifamily Sector - 2020 Process Evaluation	Document and assess virtual inspection process, and identify recommendations for improvement
Small-Medium Business Sector - 2019 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Commercial Kitchen - 2020 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Commercial Midstream Water Heating - 2021 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Retailer Incentive - 2019 Impact Evaluation	Measure total program-qualified unit sales and program-qualified share of sales to compute gross program energy and demand savings and inform net savings

EM&V Activity	Activity Description
Retailer Incentive - 2021 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
New Homeowners - 2017/2018 Impact Evaluation	Estimate energy savings, demand savings, and in-service rates for electricity and natural gas
Res. Home Energy Report - 2018 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Res. Home Energy Report - 2019 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Instant Lighting Incentive Program - 2020 AP RR Impact Evaluation	Verify implementation of AP RR assumptions and estimate adjusted gross energy and demand savings for electricity and natural gas
Retail Lighting - 2018 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas, with emphasis on understanding cross-sector sales and the program's Food Bank distribution channel
Retail Lighting - 2019 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity
Retail Lighting - 2021 AP RR Impact Evaluation	Verify implementation of AP RR assumptions and estimate adjusted gross energy and demand savings for electricity and natural gas
Smart Kids - 2017/2018 Impact Evaluation	Estimate energy savings, demand savings, and in-service rates for electricity and natural gas
Smart Kids - 2020 APRR Impact Evaluation	Verify implementation of AP RR assumptions and estimate adjusted gross energy and demand savings for electricity and natural gas
Smart Kids - ISR Update	Update in-service rates for kits, following Evaluator recommendations
NPS Sealed - 2021 Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Sealed Pilot - Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Aquanta Pilot - Impact Evaluation	Estimate natural gas water heating energy savings from the Aquanta controller
Oil-to-Electric Pilot - Impact Evaluation	Estimate adjusted gross energy and demand savings for electricity and natural gas
Future Pilot Impact Evaluations	Estimate adjusted gross energy and demand savings for electricity and natural gas; this is a spot for future Pilots evaluation work as new pilots come up
Commercial & Industrial M&V Activities	Measure and verify energy savings and peak demand reduction for large and complex projects, and new technologies. Perform M&V work to support evaluation activities, and to provide early insights on new or uncharacterized technologies.
Multifamily M&V Activities	Measure and verify energy savings and peak demand reduction for large and complex projects, and new technologies. Perform M&V work to support evaluation activities, and to provide early insights on new or uncharacterized technologies.

EM&V Activity	Activity Description
Residential M&V Activities	Measure and verify energy savings and peak demand reduction for large and complex projects, and new technologies. Perform M&V work to support evaluation activities, and to provide early insights on new or uncharacterized technologies.
Small-Medium Business M&V Activities	Measure and verify energy savings and peak demand reduction for large and complex projects, and new technologies. Perform M&V work to support evaluation activities, and to provide early insights on new or uncharacterized technologies.
Pilots M&V Activities	Assess efficiency and savings performance of new technologies and new measures at a site level for program integration.
NPS - Commercial & Industrial M&V Activities	Measure and verify energy savings and peak demand reduction for projects with emphasis on gas savings. These activities include primarily heat pump technologies and other winter peak reducing technologies.
NPS - Residential M&V Activities	Measure and verify energy savings and peak demand reduction for projects with emphasis on gas savings. These activities include primarily heat pump technologies and other winter peak reducing technologies.
NPS - Multifamily M&V Activities	Measure and verify energy savings and peak demand reduction for projects with emphasis on gas savings. These activities include primarily heat pump technologies and other winter peak reducing technologies.
NPS - Small Medium Business M&V Activities	Measure and verify energy savings and peak demand reduction for projects with emphasis on gas savings. These activities include primarily heat pump technologies and other winter peak reducing technologies.
VGS Support	Additional evaluation work to verify impact of program changes that impact an existing VGS RR. While not assigned to specific programs, the Company anticipates work over the next few years as programs change. Includes regulatory support for implementing and adhering to VGS.
Unallocated: Measure-specific Evaluations	Evaluations of new technologies as they enter programs; these technology-specific evaluations will estimate the adjusted gross energy and demand savings for electricity and natural gas
Unallocated: New Programs/ Changed Programs	Evaluations of new programs as they develop to estimate adjusted gross energy and demand savings for electricity and natural gas
Unallocated: Net-to-Gross Studies	Studying the net-to-gross factor for our portfolio, including free-ridership, spillover and market effects
Unallocated: EM&V 2024 and 2025	EM&V activities that will be required in 2024 and 2025.

Table 5B: Three-Year EM&V Activity Schedule (Electric and Gas)

EM&V Activity	Expected Plan Submission Date	Expected Start Date	Expected Completion Date	Cycle Year Informed	Completion Status
Commercial & Industrial - QAQC Activities	N/A	Q1 2020	Q4 2023	2020-2023	In Progress
Commercial Midstream Water Heating - QA/QC	N/A	Q3 2020	Q4 2023	2020-2023	In Progress
Lighting Baseline Study (Research)	N/A	Q2 2020	Q1 2022	2020-2023	In Progress
Multifamily - QA/QC	N/A	Q1 2020	Q4 2023	2020-2023	In Progress
Small-Medium Business - QA/QC	N/A	Q1 2020	Q4 2023	2020-23	In Progress
Instant Lighting Incentive Program - QA/QC (External)	N/A	Q1 2020	Q3 2020	2020	Completed
Instant Lighting Incentive Program - QA/QC (Internal)	N/A	Q3 2020	Q4 2023	2020-2023	Upcoming
NPS Lower Westchester Geothermal Program- 2019 QA/QC Final Technical Reviews	N/A	Q4 2019	Q1 2020	2020	Completed
NPS MF Energy Management & Ongoing Program 2019 QA/QC	N/A	Q3 2020	Q4 2023	2020	Completed
NPS Bronx Residential - QA/QC	N/A	Q4 2020	Q4 2023	2020-2023	In Progress
Commercial & Industrial Sector - 2018 Impact Evaluation	Q4 2019	Q4 2017	Q4 2019	2018	Completed
Commercial & Industrial Sector - 2023 Impact Evaluation	Q2 2022	Q4 2021	Q3 2024	2023	Upcoming
Residential Upstream HVAC - 2018 Impact Evaluation	Q4 2019	Q3 2019	Q1 2020	2018	Completed
Residential Upstream HVAC - Process Evaluation	Q4 2019	Q3 2019	Q1 2020	2018-2019	Completed
Residential Upstream HVAC - 2019 Impact Evaluation	Q4 2019	N/A	N/A	N/A	Withdrawn
Residential - 2020 Impact Evaluation	Q2 2021	Q1 2021	Q4 2021	2020	Upcoming
Residential Sector Downstream - 2018/2019 Impact Evaluation	Q4 2019	Q3 2019	Q3 2020	2018-2019	Completed
Residential Marketplace Program - 2020 Evaluation	Q4 2020	Q3 2020	Q2 2021	2020	Upcoming
Multifamily Sector - 2017 Impact Evaluation	Q4 2019	Q4 2017	Q1 2020	2017	Completed
Multifamily Sector - Process Evaluation	Q4 2019	Q4 2017	Q1 2020	2017-2018	Completed

EM&V Activity	Expected Plan Submission Date	Expected Start Date	Expected Completion Date	Cycle Year Informed	Completion Status
Multifamily Sector - 2018/2019 Prescriptive and Technology-Specific Reviews	Q4 2019	Q2 2018	Q1 2020	2018-2019	Completed
Multifamily Sector - 2020 AP RR Impact Evaluation	Q4 2020	Q3 2020	Q2 2021	2020	Upcoming
Multifamily Sector - 2021 Impact Evaluation	Q2 2021	Q4 2020	Q2 2022	2021	Upcoming
Multifamily Sector - 2020 Process Evaluation	Q4 2020	Q3 2020	Q2 2021	2020	Upcoming
Small-Medium Business Sector - 2019 Impact Evaluation	Q4 2019	Q3 2019	Q4 2020	2019	Delayed
Commercial Kitchen - 2020 Impact Evaluation	Q4 2020	Q2 2020	Q3 2021	2020	In Progress
Commercial Midstream Water Heating - 2021 Impact Evaluation	Q2 2021	Q4 2020	Q1 2022	2021	Upcoming
Retailer Incentive - 2019 Impact Evaluation	Q4 2019	N/A	N/A	N/A	Withdrawn
Retailer Incentive - 2021 Impact Evaluation	Q3 2021	Q2 2021	Q2 2022	2021	Upcoming
New Homeowners - 2017/2018 Impact Evaluation	Q4 2019	Q2 2018	Q1 2020	2017-2018	Completed
Res. Home Energy Report - 2018 Impact Evaluation	Q4 2019	Q1 2018	Q1 2020	2018	Completed
Res. Home Energy Report - 2019 Impact Evaluation	Q4 2019	Q1 2019	Q3 2020	2019	In Progress
Instant Lighting Incentive Program - 2020 AP RR Impact Evaluation	Q4 2020	Q3 2020	Q2 2021	2020	Upcoming
Retail Lighting - 2018 Impact Evaluation	Q4 2019	Q1 2018	Q3 2020	2018	Completed
Retail Lighting - 2019 Impact Evaluation	Q4 2019	N/A	N/A	N/A	Withdrawn
Retail Lighting - 2021 AP RR Impact Evaluation	Q1 2021	Q4 2020	Q1 2022	2021	Upcoming
Smart Kids - 2017/2018 Impact Evaluation	Q4 2019	Q2 2018	Q1 2020	2017-2018	Completed
Smart Kids - 2020 APRR Impact Evaluation	Q4 2020	Q3 2020	Q2 2021	2020	Upcoming
Smart Kids - ISR Update	Q2 2023	Q1 2023	Q1 2024	2023	Upcoming
NPS Sealed - 2021 Impact Evaluation	Q3 2021	Q2 2021	Q4 2022	2021/2022	Upcoming
Sealed Pilot - Impact Evaluation	Q4 2019	Q2 2018	Q4 2020	2018-2019	Delayed

EM&V Activity	Expected Plan Submission Date	Expected Start Date	Expected Completion Date	Cycle Year Informed	Completion Status
Aquanta Pilot - Impact Evaluation	Q4 2019	Q3 2019	Q2 2021	2019-2020	In Progress
Oil-to-Electric Pilot - Impact Evaluation	Q1 2021	Q3 2020	Q3 2022	2021	Upcoming
Future Pilot Impact Evaluations	N/A	N/A	N/A	N/A	Upcoming
Commercial & Industrial M&V Activities	N/A	Q1 2020	Q4 2023	2020-2023	In Progress
Multifamily M&V Activities	N/A	Q1 2020	Q4 2023	2020-2023	In Progress
Residential M&V Activities	N/A	Q1 2020	Q4 2023	2020-2023	In Progress
Small-Medium Business M&V Activities	N/A	Q1 2020	Q4 2023	2020-2023	In Progress
Pilots M&V Activities	N/A	Q1 2020	Q4 2023	2020-2023	In Progress
NPS - Commercial & Industrial M&V Activities	N/A	Q1 2020	Q4 2023	2020-2023	In Progress
NPS - Residential M&V Activities	N/A	Q1 2020	Q4 2023	2020-2023	In Progress
NPS - Multifamily M&V Activities	N/A	Q1 2020	Q4 2023	2020-2023	In Progress
NPS - Small Medium Business M&V Activities	N/A	Q1 2020	Q4 2023	2020-2023	In Progress
VGS Support	N/A	Q1 2020	Q4 2023	2020-2023	In Progress
Unallocated: Measure-specific Evaluations	N/A	Q1 2020	Q4 2023	2020-2023	Upcoming
Unallocated: New Programs/ Changed Programs	N/A	Q1 2020	Q4 2023	2020-2023	Upcoming
Unallocated: Net-to-Gross Studies	Q3 2021	Q2 2021	Q4 2023	Multiple	Upcoming
Unallocated: EM&V 2024 and 2025	N/A	N/A	N/A	N/A	Upcoming

Table 6A: EM&V Activity Budgeted Expenditures (Electric)

NE:NY Electric EE	Actual Year 2019	Planned Year 2020	Planned Year 2021	Planned Year 2022	Planned Year 2023	Planned Year 2024	Planned Year 2025
Commercial & Industrial - QAQC Activities	$673,165	$99,887	$514,165	$626,252	$698,090	$0	$0

NE:NY Electric EE	Actual Year 2019	Planned Year 2020	Planned Year 2021	Planned Year 2022	Planned Year 2023	Planned Year 2024	Planned Year 2025
Commercial Midstream Water Heating - QA/QC	$0	$0	$0	$0	$0	$0	$0
Lighting Baseline Study (Research)	$0	$24,550	$34,600	$0	$0	$0	$0
Multifamily - QA/QC	$328,134	$192,700	$201,925	$245,944	$274,157	$0	$0
Small-Medium Business - QA/QC	$626,420	$534,600	$561,330	$683,699	$762,127	$0	$0
Instant Lighting Incentive Program - QA/QC (External)	$50,525	$264,240	$0	$0	$0	$0	$0
Instant Lighting Incentive Program - QA/QC (Internal)	$0	$60,000	$180,000	$219,240	$244,389	$0	$0
NPS Lower Westchester Geothermal Program- 2019 QA/QC Final Technical Reviews	$17,789	$0	$0	$0	$0	$0	$0
NPS MF Energy Management & Ongoing Program 2019 QA/QC	$0	$0	$0	$0	$0	$0	$0
NPS Bronx Residential - QA/QC	$0	$0	$0	$0	$0	$0	$0
Commercial & Industrial Sector - 2018 Impact Evaluation	$325,660	$6,149	$0	$0	$0	$0	$0
Commercial & Industrial Sector - 2023 Impact Evaluation	$0	$0	$41,000	$164,000	$369,000	$0	$0
Residential Upstream HVAC - 2018 Impact Evaluation	$59,250	$0	$0	$0	$0	$0	$0
Residential Upstream HVAC - Process Evaluation	$46,500	$0	$0	$0	$0	$0	$0

NE:NY Electric EE	Actual Year 2019	Planned Year 2020	Planned Year 2021	Planned Year 2022	Planned Year 2023	Planned Year 2024	Planned Year 2025
Residential Upstream HVAC - 2019 Impact Evaluation	$0	$0	$0	$0	$0	$0	$0
Residential - 2020 Impact Evaluation	$0	$15,750	$36,000	$0	$0	$0	$0
Residential Sector Downstream - 2018/2019 Impact Evaluation	$8,720	$27,972	$0	$0	$0	$0	$0
Residential Marketplace Program - 2020 Evaluation	$0	$2,640	$50,160	$0	$0	$0	$0
Multifamily Sector - 2017 Impact Evaluation	$391,756	$0	$0	$0	$0	$0	$0
Multifamily Sector - Process Evaluation	$83,936	$0	$0	$0	$0	$0	$0
Multifamily Sector - 2018/2019 Prescriptive and Technology-Specific Reviews	$64,930	$0	$0	$0	$0	$0	$0
Multifamily Sector - 2020 AP RR Impact Evaluation	$0	$22,140	$51,660	$0	$0	$0	$0
Multifamily Sector - 2021 Impact Evaluation	$0	$10,455	$191,675	$146,370	$0	$0	$0
Multifamily Sector - 2020 Process Evaluation	$0	$12,300	$28,700	$0	$0	$0	$0
Small-Medium Business Sector - 2019 Impact Evaluation	$191,159	$826,650	$0	$0	$0	$0	$0
Commercial Kitchen - 2020 Impact Evaluation	$0	$0	$0	$0	$0	$0	$0
Commercial Midstream Water Heating - 2021 Impact Evaluation	$0	$0	$0	$0	$0	$0	$0

NE:NY Electric EE	Actual Year 2019	Planned Year 2020	Planned Year 2021	Planned Year 2022	Planned Year 2023	Planned Year 2024	Planned Year 2025
Retailer Incentive - 2019 Impact Evaluation	$0	$0	$0	$0	$0	$0	$0
Retailer Incentive - 2021 Impact Evaluation	$0	$0	$75,000	$75,000	$0	$0	$0
New Homeowners - 2017/2018 Impact Evaluation	$20,855	$2,365	$0	$0	$0	$0	$0
Res. Home Energy Report - 2018 Impact Evaluation	$49,495	$0	$0	$0	$0	$0	$0
Res. Home Energy Report - 2019 Impact Evaluation	$3,782	$28,800	$10,692	$0	$0	$0	$0
Instant Lighting Incentive Program - 2020 AP RR Impact Evaluation	$0	$12,100	$84,700	$24,200	$0	$0	$0
Retail Lighting - 2018 Impact Evaluation	$11,780	$44,000	$0	$0	$0	$0	$0
Retail Lighting - 2019 Impact Evaluation	$27,600	$0	$0	$0	$0	$0	$0
Retail Lighting - 2021 AP RR Impact Evaluation	$0	$20,000	$40,000	$0	$0	$0	$0
Smart Kids - 2017/2018 Impact Evaluation	$20,855	$0	$0	$0	$0	$0	$0
Smart Kids - 2020 APRR Impact Evaluation	$0	$14,000	$19,320	$0	$0	$0	$0
Smart Kids - ISR Update	$0	$0	$0	$0	$50,400	$0	$0
NPS Sealed - 2021 Impact Evaluation	$0	$0	$0	$0	$0	$0	$0
Sealed Pilot - Impact Evaluation	$53,800	$60,750	$0	$0	$0	$0	$0
Aquanta Pilot - Impact Evaluation	$0	$0	$0	$0	$0	$0	$0
Oil-to-Electric Pilot - Impact Evaluation	$0	$7,500	$86,000	$15,050	$0	$0	$0
Future Pilot Impact Evaluations	$0	$12,500	$174,150	$174,150	$167,700	$0	$0

NE:NY Electric EE	Actual Year 2019	Planned Year 2020	Planned Year 2021	Planned Year 2022	Planned Year 2023	Planned Year 2024	Planned Year 2025
Commercial & Industrial M&V Activities	$145,615	$196,300	$328,000	$328,000	$295,200	$0	$0
Multifamily M&V Activities	$255,849	$160,000	$203,000	$203,000	$182,700	$0	$0
Residential M&V Activities	$0	$10,000	$9,524	$9,524	$8,572	$0	$0
Small-Medium Business M&V Activities	$229,077	$1,000	$89,100	$89,100	$80,190	$0	$0
Pilots M&V Activities	$0	$25,000	$43,000	$43,000	$43,000	$0	$0
NPS - Commercial & Industrial M&V Activities	$0	$0	$0	$0	$0	$0	$0
NPS - Residential M&V Activities	$0	$0	$0	$0	$0	$0	$0
NPS - Multifamily M&V Activities	$6,997	$0	$0	$0	$0	$0	$0
NPS - Small Medium Business M&V Activities	$0	$0	$0	$0	$0	$0	$0
VGS Support	$73,591	$47,566	$61,875	$61,875	$63,750	$0	$0
Unallocated: Measure-specific Evaluations	$0	$0	$180,000	$360,000	$360,000	$0	$0
Unallocated: New Programs/ Changed Programs	$0	$0	$0	$225,000	$525,000	$0	$0
Unallocated: Net-to-Gross Studies	$0	$0	$123,750	$123,750	$127,500	$0	$0
Unallocated: EM&V 2024 and 2025	$0	$0	$0	$0	$0	$5,339,750	$6,275,788
TOTAL	**$3,767,240**	**$2,741,914**	**$3,419,325**	**$3,817,153**	**$4,251,774**	**$5,339,750**	**$6,275,788**

Table 6B: EM&V Activity Budgeted Expenditures (Gas)

NE:NY Gas EE	Actual Year 2019	Planned Year 2020	Planned Year 2021	Planned Year 2022	Planned Year 2023	Planned Year 2024	Planned Year 2025
Commercial & Industrial - QAQC Activities	$24,597	$53,786	$112,865	$114,622	$134,055	$0	$0
Commercial Midstream Water Heating - QA/QC	$0	$10,800	$23,910	$24,282	$28,399	$0	$0
Lighting Baseline Study (Research)	$0	$0	$0	$0	$0	$0	$0
Multifamily - QA/QC	$45,755	$94,000	$98,500	$100,033	$116,993	$0	$0
Small-Medium Business - QA/QC	$302	$5,400	$5,670	$5,758	$6,735	$0	$0
Instant Lighting Incentive Program - QA/QC (External)	$0	$0	$0	$0	$0	$0	$0
Instant Lighting Incentive Program - QA/QC (Internal)	$0	$0	$0	$0	$0	$0	$0
NPS Lower Westchester Geothermal Program- 2019 QA/QC Final Technical Reviews	$0	$40,200	$0	$0	$0	$0	$0
NPS MF Energy Management & Ongoing Program 2019 QA/QC	$9,805	$0	$0	$0	$0	$0	$0
NPS Bronx Residential - QA/QC	$0	$2,000	$2,000	$2,031	$2,375	$0	$0
Commercial & Industrial Sector - 2018 Impact Evaluation	$52,937	$3,311	$0	$0	$0	$0	$0
Commercial & Industrial Sector - 2023 Impact Evaluation	$0	$0	$9,000	$36,000	$81,000	$0	$0
Residential Upstream HVAC - 2018 Impact Evaluation	$59,250	$0	$0	$0	$0	$0	$0

NE:NY Gas EE	Actual Year 2019	Planned Year 2020	Planned Year 2021	Planned Year 2022	Planned Year 2023	Planned Year 2024	Planned Year 2025
Residential Upstream HVAC - Process Evaluation	$46,500	$0	$0	$0	$0	$0	$0
Residential Upstream HVAC - 2019 Impact Evaluation	$0	$0	$0	$0	$0	$0	$0
Residential - 2020 Impact Evaluation	$0	$9,250	$24,000	$0	$0	$0	$0
Residential Sector Downstream - 2018/2019 Impact Evaluation	$2,180	$16,428	$0	$0	$0	$0	$0
Residential Marketplace Program - 2020 Evaluation	$0	$360	$6,840	$0	$0	$0	$0
Multifamily Sector - 2017 Impact Evaluation	$63,770	$0	$0	$0	$0	$0	$0
Multifamily Sector - Process Evaluation	$13,664	$0	$0	$0	$0	$0	$0
Multifamily Sector - 2018/2019 Prescriptive and Technology-Specific Reviews	$10,570	$0	$0	$0	$0	$0	$0
Multifamily Sector - 2020 AP RR Impact Evaluation	$0	$10,800	$25,200	$0	$0	$0	$0
Multifamily Sector - 2021 Impact Evaluation	$0	$5,100	$93,500	$71,400	$0	$0	$0
Multifamily Sector - 2020 Process Evaluation	$0	$6,000	$14,000	$0	$0	$0	$0
Small-Medium Business Sector - 2019 Impact Evaluation	$18,906	$8,350	$0	$0	$0	$0	$0
Commercial Kitchen - 2020 Impact Evaluation	$0	$157,500	$92,500	$0	$0	$0	$0

NE:NY Gas EE	Actual Year 2019	Planned Year 2020	Planned Year 2021	Planned Year 2022	Planned Year 2023	Planned Year 2024	Planned Year 2025
Commercial Midstream Water Heating - 2021 Impact Evaluation	$0	$0	$280,000	$120,000	$0	$0	$0
Retailer Incentive - 2019 Impact Evaluation	$0	$0	$0	$0	$0	$0	$0
Retailer Incentive - 2021 Impact Evaluation	$0	$0	$0	$0	$0	$0	$0
New Homeowners - 2017/2018 Impact Evaluation	$3,395	$385	$0	$0	$0	$0	$0
Res. Home Energy Report - 2018 Impact Evaluation	$2,605	$0	$0	$0	$0	$0	$0
Res. Home Energy Report - 2019 Impact Evaluation	$199	$12,000	$4,455	$0	$0	$0	$0
Instant Lighting Incentive Program - 2020 AP RR Impact Evaluation	$0	$0	$0	$0	$0	$0	$0
Retail Lighting - 2018 Impact Evaluation	$0	$0	$0	$0	$0	$0	$0
Retail Lighting - 2019 Impact Evaluation	$0	$0	$0	$0	$0	$0	$0
Retail Lighting - 2021 AP RR Impact Evaluation	$0	$0	$0	$0	$0	$0	$0
Smart Kids - 2017/2018 Impact Evaluation	$3,395	$0	$0	$0	$0	$0	$0
Smart Kids - 2020 APRR Impact Evaluation	$0	$6,000	$3,680	$0	$0	$0	$0
Smart Kids - ISR Update	$0	$0	$0	$0	$9,600	$0	$0
NPS Sealed - 2021 Impact Evaluation	$0	$0	$150,000	$150,000	$0	$0	$0
Sealed Pilot - Impact Evaluation	$53,800	$60,750	$0	$0	$0	$0	$0

NE:NY Gas EE	Actual Year 2019	Planned Year 2020	Planned Year 2021	Planned Year 2022	Planned Year 2023	Planned Year 2024	Planned Year 2025
Aquanta Pilot - Impact Evaluation	$32,583	$122,300	$56,600	$0	$0	$0	$0
Oil-to-Electric Pilot - Impact Evaluation	$0	$7,500	$114,000	$19,950	$0	$0	$0
Future Pilot Impact Evaluations	$0	$12,500	$230,850	$230,850	$222,300	$0	$0
Commercial & Industrial M&V Activities	$7,184	$105,700	$72,000	$72,000	$64,800	$0	$0
Multifamily M&V Activities	$100,895	$78,049	$147,000	$147,000	$132,300	$0	$0
Residential M&V Activities	$0	$5,873	$6,349	$6,349	$5,714	$0	$0
Small-Medium Business M&V Activities	$2,669	$10	$900	$900	$810	$0	$0
Pilots M&V Activities	$0	$25,000	$57,000	$57,000	$57,000	$0	$0
NPS - Commercial & Industrial M&V Activities	$0	$70,000	$140,000	$140,000	$140,000	$0	$0
NPS - Residential M&V Activities	$0	$0	$140,000	$140,000	$140,000	$0	$0
NPS - Multifamily M&V Activities	$69,384	$70,000	$140,000	$140,000	$140,000	$0	$0
NPS - Small Medium Business M&V Activities	$0	$0	$73,000	$73,000	$73,000	$0	$0
VGS Support	$14,065	$15,855	$20,625	$20,625	$21,250	$0	$0
Unallocated: Measure-specific Evaluations	$0	$0	$60,000	$120,000	$120,000	$0	$0
Unallocated: New Programs/ Changed Programs	$0	$0	$0	$75,000	$175,000	$0	$0
Unallocated: Net-to-Gross Studies	$0	$0	$41,250	$41,250	$42,500	$0	$0
Unallocated: EM&V 2024 and 2025	$0	$0	$0	$0	$0	$2,317,289	$2,568,458
TOTAL	**$638,410**	**$1,015,207**	**$2,245,695**	**$1,908,050**	**$1,713,831**	**$2,317,289**	**$2,568,458**

Benefit-Cost Analysis

The benefits and costs for the Company's individual electric portfolio programs, including heat pumps but excluding LMI programs, are based on the current metrics are detailed in Table 7A. Table 7B includes benefits and costs for the Company's individual natural gas portfolio programs, excluding LMI programs. The overall BCAs for electric and gas portfolios are summarized in Tables 8A and 8B. The BCAs for NWS are filed separately pursuant to Commission directive in the Company's rate case dockets.[38]

Table 7A: Electric and NYS Clean Heat Portfolio Program Benefits and Costs[39]

PORTFOLIO (NE:NY Electric EE including NYS Clean Heat)	2019	2020	2021	2022	2023	2024	2025
Commercial & Industrial (C&I) Sector							
C&I Electric							
Benefits	$78,784,413	$80,177,146	$82,579,513	$97,988,657	$161,555,673	$216,696,792	$290,670,538
Costs	$37,266,000	$26,461,672	$41,855,252	$50,266,874	$65,032,677	$75,007,891	$90,713,695
Benefit Cost Ratio	**2.11**	**3.03**	**1.97**	**1.95**	**2.48**	**2.89**	**3.20**
C&I Upstream Lighting Electric							
Benefits	$35,053,234	$53,502,828	$47,804,659	$52,610,587	$53,747,093	$49,108,765	$40,265,945
Costs	$5,607,000	$7,687,460	$7,023,136	$7,786,276	$6,513,375	$5,289,234	$3,990,186
Benefit Cost Ratio	**6.25**	**6.96**	**6.81**	**6.76**	**8.25**	**9.28**	**10.09**
Small-Medium Business Electric							
Benefits	N/A	$83,406,201	$100,488,596	$101,468,523	$171,058,301	$235,935,779	$306,372,332

[38] *See*, *e.g.*, Case 19-E-0065, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service*, Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plan, (Issued January 16,2020).

[39] Benefits and costs values represented in 2020 dollars

PORTFOLIO (NE:NY Electric EE including NYS Clean Heat)	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Costs	N/A	$27,264,550	$43,263,557	$ 45,547,145	$62,187,827	$74,880,129	$87,652,152
Benefit Cost Ratio	**N/A**	**3.06**	**2.32**	**2.23**	**2.75**	**3.15**	**3.50**
Westchester P4P Electric							
Benefits	N/A	$ -	$128,074	$6,263,675	$11,783,964	$11,187,563	$5,310,345
Costs	N/A	$ -	$ 32,751	$1,001,105	$1,944,585	$1,914,522	$1,003,820
Benefit Cost Ratio	**N/A**	**N/A**	**3.91**	**6.26**	**6.06**	**5.84**	**5.29**
Residential Sector							
Marketplace Electric							
Benefits	$3,097,326	$18,878,068	$12,971,415	$14,302,779	$16,042,983	$17,632,003	$20,448,593
Costs	$1,160,000	$3,098,092	$4,056,845	$4,545,755	$4,268,998	$4,245,585	$4,612,223
Benefit Cost Ratio	**2.67**	**6.09**	**3.20**	**3.15**	**3.76**	**4.15**	**4.43**
Pilots Electric							
Benefits		$1,264,903	$7,087,306	$7,802,016	$8,724,964	$9,563,525	$11,055,307
Costs		$501,342	$1,692,530	$1,907,241	$1,887,668	$1,952,321	$2,194,146
Benefit Cost Ratio		**2.52**	**4.19**	**4.09**	**4.62**	**4.90**	**5.04**
Residential Electric							
Benefits	$4,672,433	$8,270,797	$7,524,488	$8,290,744	$9,285,262	$10,195,467	$11,803,995
Costs	$1,579,000	$5,276,662	$2,530,121	$2,793,774	$2,658,923	$2,671,327	$2,932,841
Benefit Cost Ratio	**2.96**	**1.57**	**2.97**	**2.97**	**3.49**	**3.82**	**4.02**
Residential Home Energy Report Electric							
Benefits	$5,634,375	$6,426,676	$6,055,800	$6,776,754	$7,632,566	$8,427,102	$9,355,069
Costs	$7,445,000	$1,729,314	$2,097,204	$2,395,242	$2,700,038	$3,007,274	$3,474,298

PORTFOLIO (NE:NY Electric EE including NYS Clean Heat)	2019	2020	2021	2022	2023	2024	2025
Benefit Cost Ratio	**0.76**	**3.72**	**2.89**	**2.83**	**2.83**	**2.80**	**2.69**
Retail Lighting Electric							
Benefits	$80,032,939	$204,324,454	$183,525,697	$202,360,790	$145,574,914	$93,280,175	$53,772,618
Costs	$9,381,000	$12,410,196	$19,528,410	$21,993,099	$13,849,323	$8,272,737	$4,529,744
Benefit Cost Ratio	**8.53**	**16.46**	**9.40**	**9.20**	**10.51**	**11.28**	**11.87**
Retailer Incentive Electric							
Benefits	$2,932,325	$1,881,625	$2,808,293	$3,095,534	$3,470,092	$3,811,764	$4,417,892
Costs	$1,771,000	$3,989,572	$6,195,115	$6,660,174	$5,589,796	$5,056,878	$5,085,654
Benefit Cost Ratio	**1.66**	**0.47**	**0.45**	**0.46**	**0.62**	**0.75**	**0.87**
Smart Kids Electric							
Benefits	$5,689,425	$1,054,801	$7,368,676	$7,093,505	$6,823,756	$6,558,579	$6,303,710
Costs	$1,871,000	$443,581	$3,119,749	$3,049,456	$2,422,444	$2,085,244	$1,863,116
Benefit Cost Ratio	**3.04**	**2.38**	**2.36**	**2.33**	**2.82**	**3.15**	**3.38**
Multifamily Sector							
Multifamily Electric							
Benefits	$5,707,200	$11,735,580	$22,196,488	$23,048,173	$ 28,276,726	$42,663,830	$68,410,220
Costs	$7,089,000	$8,530,646	$15,568,007	$16,393,749	$16,227,899	$21,547,893	$31,801,544
Benefit Cost Ratio	**0.81**	**1.38**	**1.43**	**1.41**	**1.74**	**1.98**	**2.15**
Heat Pumps							
NYS Clean Heat							
Benefits	N/A	$10,975,799	$51,139,071	$62,376,540	$74,635,628	$85,289,320	$93,929,983
Costs	N/A	$6,145,503	$46,621,457	$58,731,197	$71,011,820	$80,428,115	$88,094,656
Benefit Cost Ratio	**N/A**	**1.79**	**1.10**	**1.06**	**1.05**	**1.06**	**1.07**

PORTFOLIO (NE:NY Electric EE including NYS Clean Heat)	2019	2020	2021	2022	2023	2024	2025
Total Electric Portfolio							
Benefits	$298,855,908	$481,898,877	$531,678,075	$593,478,278	$698,611,924	$790,350,664	$922,116,548
Costs	$150,511,555	$103,538,590	$193,584,134	$223,071,087	$256,295,374	$286,359,149	$327,948,075
Portfolio Benefit Cost Ratio	**1.99**	**4.65**	**2.75**	**2.66**	**2.73**	**2.76**	**2.81**

Table 7B: Natural Gas Portfolio Program Benefits and Cost[40]

PORTFOLIO (NE:NY Gas)	2019	2020	2021	2022	2023	2024	2025
Commercial & Industrial (C&I) Sector							
C&I Gas							
Benefits	$14,553,654	$7,082,248	$26,931,027	$29,730,224	$32,143,177	$34,684,563	$36,690,089
Costs	$7,259,000	$14,288,895	$27,482,415	$31,255,011	$35,262,937	$40,147,476	$44,995,502
Benefit Cost Ratio	**2.00**	**0.50**	**0.98**	**0.95**	**0.91**	**0.86**	**0.82**
Commercial Kitchen Gas							
Benefits	N/A	$890,934	$2,404,366	$2,788,938	$3,127,396	$3,355,267	$3,538,343
Costs	N/A	$769,637	$1,163,483	$1,387,275	$1,610,736	$1,796,665	$1,978,621
Benefit Cost Ratio	**N/A**	**1.16**	**2.07**	**2.01**	**1.94**	**1.87**	**1.79**
Commercial Upstream Water Heating Gas							

[40] Benefits and costs values represented in 2020 dollars

PORTFOLIO (NE:NY Gas)	2019	2020	2021	2022	2023	2024	2025
Benefits	N/A	$1,781,141	$5,785,108	$6,683,304	$7,463,587	$7,980,394	$8,386,008
Costs	N/A	$776,550	$1,983,174	$2,364,692	$2,748,868	$3,074,099	$3,394,261
Benefit Cost Ratio	**N/A**	**2.29**	**2.92**	**2.83**	**2.72**	**2.60**	**2.47**
Small-Medium Business Gas							
Benefits	N/A	$560,950	$1,731,192	$2,001,642	$2,237,395	$2,396,064	$2,522,206
Costs	N/A	$192,827	$367,643	$438,249	$509,120	$567,265	$624,941
Benefit Cost Ratio	**N/A**	**2.91**	**4.71**	**4.57**	**4.39**	**4.22**	**4.04**
Westchester P4P Gas							
Benefits	N/A	$ -	$13,725	$ 679,234	$1,290,520	$1,236,291	$591,757
Costs	N/A	$ -	$12,753	$ 514,215	$1,006,281	$ 994,706	$507,035
Benefit Cost Ratio	**N/A**	**n/a**	**1.08**	**1.32**	**1.28**	**1.24**	**1.17**
Residential Sector							
Marketplace Gas							
Benefits	$418,826	$657,996	$952,831	$1,105,027	$1,238,742	$1,329,539	$1,401,523
Costs	$102,000	$786,781	$673,125	$802,705	$934,087	$1,047,707	$1,159,741
Benefit Cost Ratio	**4.11**	**0.84**	**1.42**	**1.38**	**1.33**	**1.27**	**1.21**
Pilots Gas							
Benefits	N/A	$139,260	$1,279,873	$1,483,537	$1,662,577	$1,782,952	$1,879,633
Costs	N/A	$ 251,866	$1,946,606	$2,321,726	$2,686,868	$2,985,429	$3,267,905
Benefit Cost Ratio	**N/A**	**0.55**	**0.66**	**0.64**	**0.62**	**0.60**	**0.58**
Residential Gas							
Benefits	$5,951,226	$3,440,461	$5,268,610	$6,073,396	$6,771,821	$7,234,509	$7,600,795

PORTFOLIO (NE:NY Gas)	2019	2020	2021	2022	2023	2024	2025
Costs	$3,305,000	$4,284,507	$2,705,798	$3,227,075	$3,758,801	$4,228,299	$4,691,406
Benefit Cost Ratio	**1.80**	**0.80**	**1.95**	**1.88**	**1.80**	**1.71**	**1.62**
Residential Weatherization							
Benefits	N/A	$ 727,316	$1,446,446	$1,667,393	$1,859,138	$1,986,165	$2,086,725
Costs	N/A	$ 994,611	$487,820	$ 581,747	$ 679,580	$ 768,212	$857,225
Benefit Cost Ratio	**N/A**	**0.73**	**2.97**	**2.87**	**2.74**	**2.59**	**2.43**
Residential Home Energy Report Gas							
Benefits	$169,013	$ 445,409	$513,467	$ 594,486	$ 667,819	$ 718,091	$760,721
Costs	$356,000	$ 634,116	$574,748	$ 684,743	$ 793,346	$ 874,897	$956,530
Benefit Cost Ratio	**0.47**	**0.70**	**0.89**	**0.87**	**0.84**	**0.82**	**0.80**
Smart Kids Gas							
Benefits	$1,281,632	$ 413,962	$1,019,065	$ 991,721	$ 964,105	$ 935,581	$906,679
Costs	$464,000	$ 133,914	$527,054	$ 526,812	$ 530,901	$ 536,933	$545,106
Benefit Cost Ratio	**2.76**	**3.09**	**1.93**	**1.88**	**1.82**	**1.74**	**1.66**
Multifamily Sector							
Multifamily Gas							
Benefits	$25,199,657	$8,219,681	$19,380,335	$22,106,861	$24,491,283	$26,280,515	$28,277,590
Costs	$12,725,000	$6,371,295	$10,462,849	$12,476,864	$14,526,184	$16,307,430	$18,069,223
Benefit Cost Ratio	**1.98**	**1.29**	**1.85**	**1.77**	**1.69**	**1.61**	**1.56**
Total Gas Portfolio							
Benefits	$47,574,008	$24,359,357	$66,726,045	$75,905,762	$83,917,560	$89,919,931	$94,642,070
Costs	$29,033,642	$29,484,999	$48,387,470	$56,581,114	$65,047,710	$73,329,119	$81,047,495
Portfolio Benefit Cost Ratio	**1.64**	**0.83**	**1.38**	**1.34**	**1.29**	**1.23**	**1.17**

Table 8A: Electric and NYS Clean Heat Portfolio BCA Results

Total Electric Portfolio Scores	2019	2020	2021	2022	2023	2024	2025
SCT	1.99	4.65	2.75	2.66	2.73	2.76	2.81
UCT	1.49	4.17	2.63	2.60	2.72	2.77	2.81
RIM	0.50	0.90	0.91	0.92	1.05	1.15	1.23

Table 8B: Gas Portfolio BCA Results

Total Natural Gas Portfolio Scores	2019	2020	2021	2022	2023	2024	2025
SCT	1.64	0.83	1.38	1.34	1.29	1.23	1.17
UCT	1.09	0.97	1.53	1.48	1.42	1.35	1.28
RIM	0.31	0.36	0.43	0.43	0.43	0.43	0.42