Statewide Low- and Moderate-Income Portfolio Implementation Plan

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Accelerated Energy Efficiency Targets
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Executive Summary

Implementation Plan for Statewide LMI Portfolio

The New York Utilities¹ and the New York State Energy Research and Development Authority ("NYSERDA") (together, "Program Administrators") jointly file this implementation plan ("Implementation Plan" or "Plan") for the statewide portfolio of energy efficiency programs and initiatives for low-to moderate-Income ("LMI") customers and communities in New York. The portfolio of programs and offerings outlined in this Plan (the "Statewide LMI Portfolio" or the "Portfolio") is designed to create a more holistic and coordinated approach to deliver energy efficiency to LMI customers and communities in New York and also: (1) improve the experience of and ultimate benefit for LMI customers seeking to access clean energy services; (2) reduce administrative costs and increase the impact of ratepayer funding; and (3) provide more consistent and streamlined participation for service providers.

In addition to advancing energy affordability and access to energy efficiency for New York's LMI residents and communities, the Plan supports New York State policy related to advancing clean energy and reducing greenhouse gas emissions. The Plan contributes to achieving key goals from the Climate Leadership and Community Protection Act ("CLCPA"), including the requirement that no less than 35 percent of the overall benefits of spending on clean energy programs benefit disadvantaged communities, by initially focusing on the equity issues that can be most directly addressed by clean energy programs, such as energy affordability, reduced fossil fuel combustion for environmental justice, and enhanced community engagement.

The Plan includes a budget across the Program Administrators from 2020-2025 of \$880.25 million in new funding allocations, with estimated lifetime electric savings of 7,559,707 megawatt hours ("MWh"), gas savings of 151,063,530 million British Thermal Units ("MMBtu"), and greenhouse gas emissions reductions of 11,654,391 carbon dioxide equivalent ("CO2e") metric tons, while serving an estimated 1.2 million participants. The Plan is consistent with the directives from the New York Public Service Commission, including the Accelerated Efficiency Order² from December 2018 and the

providing electric service to customers are referred to as "NY Electric Utilities."

¹ Central Hudson Gas & Electric Corporation ("Central Hudson"); Consolidated Edison Company of New York, Inc. ("Con Edison"); KeySpan Gas East Corporation d/b/a National Grid ("KEDLI"), The Brooklyn Union Gas Company d/b/a National Grid NY ("KEDNY"), Niagara Mohawk Power Corporation d/b/a National Grid ("Niagara Mohawk")(collectively "National Grid"); National Fuel Gas Distribution Corporation ("NFGDC"), New York State Electric & Gas Corporation ("NYSEG"); Orange and Rockland Utilities, Inc. ("Orange & Rockland"); and Rochester Gas and Electric Corporation ("RG&E"), (collectively, "Utilities"). The Utilities

² Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative* ("NE: NY Proceeding"), Order Authorizing Accelerated Energy Efficiency Targets (issued December 13, 2018) ("Accelerated Efficiency Order").

Implementation Order³ in January 2020, including spending 20% of incremental energy efficiency funding on LMI customers, with 40% of that spending allocated to affordable multifamily buildings.

The Plan represents a major step forward in the planning and delivery of energy efficiency initiatives to LMI New Yorkers. Whereas historically the Utilities and NYSERDA have separately run different LMI programs and offered different services across the state, this Plan reflects the shift to the Program Administrators jointly designing, implementing, maintaining, and improving a single Statewide LMI Portfolio. Benefits from this approach will include enhanced and more consistent services and offerings across the state; increased efficiencies and associated cost reductions, including in Portfolio implementation, administration, marketing, and evaluation; and coordinated efforts to continually improve and enhance the Portfolio. LMI customers, contractors, and other market actors and stakeholders will benefit from increased alignment of initiatives, incentive structures, marketing, and other Portfolio elements.

As is described in the Plan, the Program Administrators will continue to identify, assess, and implement the steps to further effect this shift to the Statewide LMI Portfolio and achieve the associated benefits, over the period of the Plan, 2020-2025. These efforts will be coordinated under the Joint LMI Management Committee and will reflect continued engagement with stakeholders.⁴

Summary of Plan

The Plan is comprised of the following eight sections.

Section 1. Introduction describes the context for the LMI Portfolio and the breadth of the New York State policy landscape which this Plan is instrumental in advancing, including the Reforming the Energy Vision proceeding, the Affordability Policy, NYSERDA-administered Clean Energy Fund ("CEF"), and the CLCPA. Section 1 describes the Program Administrators' focus on addressing market barriers that LMI customers and communities, affordable housing providers, community organizations, and other market actors associated with affordable housing activities face in adopting energy efficiency initiatives, as well as Program Administrator challenges in delivering them. Consistent with the CLCPA, the Plan reflects the importance of addressing environmental justice communities that have historically borne the brunt of energy industry impacts such as health impacts, pollution, and disinvestment in communities, while also facing the broader set of barriers to accessing clean energy solutions.

³ NE: NY Proceeding, Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios Through 2025 (issued January 16, 2020) ("Implementation Order").

⁴ The central and continuing role of stakeholder engagement in the development of this Statewide LMI Portfolio is reflected by the companion filing to this Plan, which summarizes stakeholder input and the Program Administrators responses.

Section 2. Statewide LMI Portfolio describes the overall approach of the Plan of leveraging the respective strengths of the Program Administrators in the development and implementation of the LMI Portfolio. This section identifies objectives for the Plan, which complement objectives laid out in the Accelerated Efficiency Order, and which are linked to Performance Metrics to measure and assess the Portfolio. Section 2 also describes the approach to implementing, updating, and reporting on the Plan, including the core role of a Joint LMI Management Committee and stakeholder engagement. In addition, this section describes the approach to maintaining the Portfolio, recognizing the evolution from the Current Status of programs, to a Transitional Phase, to Full Implementation of the statewide approach. Finally, section 2 also notes several complex coordination and administrative elements that must be addressed after this filing to fully achieve the Plan's objectives. Finally, this section describes the eligibility thresholds for qualification in the Portfolio, including the assessment of innovative approaches.

Section 3. Budgets, Targets, and Other Impacts presents the Portfolio budgets and targets for 2020-2025, by year and by Program Administrator. Portfolio-level performance metrics by year are also provided; these Portfolio-level performance metrics will be quantified and reported quarterly and can be viewed on the Clean Energy Dashboard. Additional detail on budgets, targets, and metrics is provided in appendices.

Section 4. Statewide LMI Portfolio Initiatives describes the initiatives by sector, including:

- Existing 1-4 Family Homes
- Existing Affordable Multifamily Buildings, including Technical Assistance
- Affordable New Construction
- Pilots and Demonstrations
- Beneficial Electrification
- Additional LMI Initiatives funded through CEF, including New York State Healthy Homes and Solar for All

The Existing 1-4 Family Homes and Existing Affordable Multifamily Buildings Initiatives represent the bulk of the Statewide LMI Portfolio offerings from a budget perspective. Approximately 36% of the total statewide Portfolio budget, including CEF investment, is allocated to Existing 1-4 Family Homes initiatives; 42% of total Portfolio budget including CEF investment is allocated to Existing Affordable Multifamily initiatives, including 65% of incremental Utility funding.

Subsections for the Existing 1-4 Family Homes, Existing Affordable Multifamily Buildings, including Technical Assistance, and Affordable New Construction sectors provide detail on the sector initiatives and services, Objectives, Current Status, Transitional Phase, and Full Implementation. These subsections also provide detail regarding the Target Market, Delivery Methods, Eligible Measures, Incentive Structure, Stakeholder/ Market

Engagement, including identifying Key Partners, Additional Consideration specific to that sector, such as Additional Funding Sources, as well as Implementation Milestones for the first several years under the Plan (*i.e.*, through 2022).

Pilots and demonstrations are key element of the Plan, as opportunities for increasing access to energy efficiency solutions and improving energy affordability are everevolving, with new technologies, applications, business and delivery models, and opportunities for cross-sector coordination emerging on a regular basis. To continuously improve the programs and offerings under the LMI Portfolio, the Program Administrators will incorporate the piloting and demonstration of new technologies and approaches for serving LMI customers and communities. The Program Administrators will fund LMI pilots and demonstrations through the CEF, with the expectation that learnings will be communicated and deployed at a larger scale.

The Statewide LMI Portfolio includes investments in the LMI market segment in beneficial electrification, *i.e.*, transitioning to electricity from other fuel sources to reduce emissions of greenhouse gases and other pollutants. Portfolio investments in beneficial electrification will seek to improve energy affordability and health outcomes, while maintaining consumer protection and increasing access to heat pump solutions for LMI communities, households, and building owners.

Additional LMI Initiatives funded through CEF include New York State Healthy Homes and Solar for All. These initiatives were initially filed as part of the LMI Chapter of the CEF, and with the transition of the LMI elements of the CEF to this Implementation Plan, are presented in the Plan.

Section 5. Customer Awareness, Outreach & Engagement describes how customer awareness and education initiatives will play a crucial role in creating lasting effects from energy efficiency among LMI customers. The success of the Portfolio will depend upon meaningful engagement with customers, contractors, and community partners through a successful customer awareness, outreach and engagement campaign.

Section 5 identifies key objectives related to Customer Awareness, Outreach & Engagement. Through multiple delivery channels, the Program Administrators will deliver initiatives that will address the overall strategic development and coordination of Customer Awareness, Outreach and Engagement initiatives. These initiatives will build on existing program experience and provide a comprehensive and integrated statewide approach that Program Administrators expect to include, but not be limited to, the following key initiatives:

Statewide branding;

- Centralized NY Energy Advisor: for Income Eligible Energy Efficiency Programs
 website ("NY Energy Advisor") providing online information on energy efficiency,
 clean energy, as well as a one-stop shop to learn about and participate in the
 Portfolio offerings statewide;
- Branded hard-copy program outreach and informational collateral to complement the online NY Energy Advisor website;
- A statewide, community-based partnership to leverage the customer outreach and engagement capabilities of LMI stakeholder organizations, as well as contractors;
- Delivery of community-based partnerships that combine distribution of low-cost energy efficient measures with education about energy efficiency and clean energy and information on how to participate in other Portfolio programs; and
- Delivery of community-based marketing and paid advertising.

Section 6. Engaging External Stakeholders reflects that, in addition to the coordination across the Program Administrators, there are additional opportunities to work with programs administered by New York State agencies, local government and community based organizations to reduce redundancy and to increase coordination, effectiveness and impact for customers. Section 6 identifies these organizations and describes the nature of coordination with each, including through the Joint LMI Management Committee.

Section 7. Preliminary Benefit Cost Analysis presents the summary results of the preliminary Benefit Cost Analysis ("BCA") for the LMI Portfolio of initiatives, with additional detail provided in Appendix E. This section reinforces that the results are preliminary and will be refined as the initiatives are further developed. Further, the assumptions used for the Preliminary Portfolio BCA are based on the Current Status of initiatives and are not reflective of the changes to programs that will be made through the Transitional Phase. In addition, the Program Administrators note that there are many additional non-energy benefits not included in the calculation of the BCA that aid LMI customers.

Section 8. Evaluation, Measurement, & Verification Approach describes the coordinated approach the Program Administrators will take estimating savings and evaluating LMI initiatives. This will include standardized statewide savings estimation approaches, collaborative evaluation activities, and continuous monitoring of and feedback on Performance Metrics. Specific program-level savings estimation approaches and evaluation schedules will be detailed in the forthcoming Verified Gross Savings Specifications.

1. Introduction

Pursuant to the January 16, 2020 Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios through 2025 ("Implementation Order"),⁵ the New York State Energy Research and Development Authority ("NYSERDA") and the New York Utilities⁶ (collectively, "Program Administrators") jointly file this implementation plan ("Implementation Plan" or "Plan") describing the statewide portfolio of energy efficiency programs and initiatives for Low-to Moderate-Income ("LMI") customers and communities. This Plan reflects the Program Administrators' coordinated approach to advance energy affordability and access to energy efficiency among New York's LMI residents and communities. The statewide portfolio approach described in this Plan enables the Program Administrators' investments to be positioned in a complementary and impactful manner that better serves the LMI market segment and further expands the reach of energy efficiency initiatives and increases the impact of ratepayer funding. The portfolio of programs and offerings outlined in this Plan (the "Statewide LMI Portfolio" or the "Portfolio") is designed to create a more holistic and coordinated approach to deliver energy efficiency to LMI customers and communities in New York and also: (1) improve the experience of and ultimate benefit for LMI customers seeking to access clean energy services; (2) reduce administrative costs and increase the impact of ratepayer funding; and (3) provide more consistent and streamlined participation for service providers.

The investments outlined in this Plan seek to address the equity issues outlined in the Climate Leadership and Community Protection Act ("CLCPA")⁸ that can be most directly addressed by clean energy programs, such as energy affordability, reduced fossil fuel

⁵ Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative* ("NE: NY Proceeding"), Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios Through 2025 (issued January 16, 2020) ("Implementation Order").

⁶ Central Hudson Gas & Electric Corporation ("Central Hudson"); Consolidated Edison Company of New York, Inc. ("Con Edison"); KeySpan Gas East Corporation d/b/a National Grid ("KEDLI"), The Brooklyn Union Gas Company d/b/a National Grid NY ("KEDNY"), Niagara Mohawk Power Corporation d/b/a National Grid ("Niagara Mohawk")(collectively "National Grid"); National Fuel Gas Distribution Corporation ("NFGDC"); New York State Electric & Gas Corporation ("NYSEG"); Orange and Rockland Utilities, Inc. ("Orange & Rockland"); and Rochester Gas and Electric Corporation ("RG&E") (collectively, "Utilities"). The Utilities providing electric service to customers are referred to as "NY Electric Utilities."

⁷ For the purpose of the Statewide LMI Portfolio, these initiatives serve customers located in the territories of the Utilities defined and do not serve, unless otherwise noted, customers in other utility territories across the state. NYSERDA and the Utilities will coordinate and share information on initiatives with utilities not outlined in this Plan, to ensure alignment and advancement of energy efficiency initiatives across the State.

⁸Chapter 106 of the Laws of 2019. CLCPA is available at https://legislation.nysenate.gov/pdf/bills/2019/S6599.

combustion for environmental justice, and enhanced community engagement. The CLCPA requires that disadvantaged communities shall receive no less than 35% of the overall benefits of spending on clean energy and energy efficiency programs, and the Program Administrators will continue to adapt the LMI investments to meet the requirements of the CLCPA, as the work of the Climate Action Council and Climate Justice Working Group advances.⁹

1.1 LMI Market Segment: Context for Statewide LMI Portfolio

New York State's LMI customer market is broad and diverse, with more than 3.5 million households (40% of the State's households) qualifying as LMI.¹⁰ Low-income households are defined as those with annual incomes at or below 60% of the State Median Income; 2.3 million households currently meet this criterion. The moderate-income customer market segment, which currently encompasses about roughly 1.2 million households, is comprised of households with an annual income between 60% and 80% of the State Median Income or the Area Median Income, whichever is greater.¹¹

LMI households spend a disproportionate share of their annual income on energy bills¹² relative to other households in New York. In addition, LMI households often lack the time, financial resources, and information necessary to invest in or gain access to energy efficiency upgrades, even though they may often benefit greatly from these improvements. LMI residents and communities also face challenges associated with quality of life issues, sometimes including health impacts associated with inefficient and deteriorating building stock that result from the lack of resources to invest in regular maintenance and improvement.

Affordable housing providers, community organizations, and other market actors associated with affordable housing activities face similar obstacles. For instance, affordable housing owners and developers may lack the capital to invest in high

⁹ The Climate Justice Working Group is responsible for identifying disadvantaged communities, pursuant to the CLCPA, and it is expected that criteria for disadvantaged communities will be finalized in 2021. In addition, the Climate Action Council is responsible for developing a Scoping Plan to achieve the State's bold clean energy and climate agenda, which is expected in 2022. *See*, https://climate.ny.gov/Climate-Justice-Working-Group

¹⁰ 2019 American Community Survey: https://www.census.gov/programs-surveys/acs

 $^{^{11}}$ The impacts of the COVID-19 pandemic on household income are not yet fully captured in economic data. The number of households qualifying as LMI in New York is generally expected to increase as a result of higher unemployment and reduced economic activity caused by the pandemic.

¹² According to 2018 Home Energy Affordability Gap data prepared by Fisher, Sheehan, and Colton, energy burdens can exceed 30% of annual income for many low-income New Yorkers compared to 6% or less for higher income New Yorkers: http://www.homeenergyaffordabilitygap.com/

performance or clean energy improvements to their buildings. They also may not have access to resources and technical expertise necessary to develop solutions for addressing the energy affordability issues faced by their residents.

More than 40% of New York's LMI population lives in affordable multifamily housing buildings exceeding five or more units. ¹³ Those who rent apartments in these buildings often do not have the ability to make their own energy efficiency upgrades, and those who own are often restricted from making improvements by complex cooperative or condominium rules. Decisions to undertake energy efficiency investments in these circumstances often reflect a "split incentive" problem. For example, in buildings where tenants pay their own energy bills, there is little incentive for building owners to undertake such investments. Likewise, if tenants are apt to move over the near term, they have no incentive to pursue such investments as they would not realize the benefits of such investments over time.

The Statewide LMI Portfolio described in this Plan is intended to address the barriers that LMI customers can face in realizing the benefits of energy efficiency. These barriers faced by customers and challenges that the Program Administrators will seek to overcome include:

- Limited LMI customer access to capital and financing;
- Limited awareness of energy efficiency programs and resources;
- Split incentives for affordable housing owners to make investments that improve tenant space;
- Administrative challenges in identifying and reaching LMI customers;
- Health and safety or structural deficiencies that impede progress on energy efficiency work; and
- Limited technical and engineering assistance for building owners.

Environmental justice ("EJ") communities¹⁴ have historically borne the brunt of the disproportionate impacts of the energy industry, including health impacts, pollution, and disinvestment in communities, while also facing the broader set of barriers to accessing clean energy solutions. Through the Statewide LMI Portfolio, the Program Administrators will seek to increase access to energy efficiency and other clean energy solutions through

^{13 2019} American Community Survey: https://www.census.gov/programs-surveys/acs

¹⁴ Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. https://www.epa.gov/environmentaljustice.

direct investment in programs that can reduce energy burden for residents and communities. These solutions include home energy retrofits, improving the energy performance and overall quality of affordable housing, and increasing energy awareness among and engagement with residents and communities. The challenges that EJ communities face are complex and, in some cases, broader than can be addressed through the LMI Portfolio alone. The Program Administrators will coordinate with State, local, and community-based organizations to identify opportunities for improving the impact of the LMI Portfolio among EJ and otherwise disadvantaged communities.

1.2 Policy and Regulatory Landscape

The Statewide LMI Portfolio proposed herein will contribute to the advancement of the goals laid out in various New York State energy and climate policy matters including Reforming the Energy Vision ("REV"), New Efficiency: New York ("NE: NY"), and the CLCPA.

With REV, the New York Public Service Commission ("PSC") emphasized consideration of new business models to create opportunities for customer choice while also prioritizing adoption of and access to distributed energy resources as an integral tool for advancing clean energy goals. The REV framework includes the Affordability Policy, 15 which seeks to address energy affordability for low-income households. The Affordability Policy Policy 16 provides direct bill relief in the form of utility bill discounts, totaling approximately \$250 million annually, to low-income customers. The Affordability Policy and the suite of clean energy programs discussed in this Implementation Plan will work in tandem to improve energy affordability for low-income New Yorkers.

The REV Framework also includes the NYSERDA-administered Clean Energy Fund¹⁷ ("CEF") instituted in 2016 which, among other things, seeks to improve energy affordability and access to clean energy for LMI households. In compliance with the Implementation Order, all CEF investments targeting LMI households are incorporated into this Implementation Plan to provide a holistic view of all energy efficiency, building electrification and renewable energy initiatives targeting LMI households.

¹⁵ Case 14-M-0565, *Proceeding on Motion of the Commission to Examine Programs to Address Energy Affordability for Low Income Utility Customers* ("Affordability Policy Proceeding"), Order Adopting Low Income Program Modification and Directing Utility Filings, (issued May 20, 2016).

¹⁶ In the Affordability Policy Proceeding, the Public Service Commission developed a regulatory policy framework for addressing the energy affordability needs of low-income customers and established an energy burden target of 6% for all low-income customers.

¹⁷ See, Case 14-M-0094, Proceeding on Motion of the Commission to Consider a Clean Energy Fund, Order Authorizing the Clean Energy Fund Framework (issued January 21, 2016).

The NE: NY whitepaper ("NE: NY Whitepaper"), filed by the New York State Department of Public Service ("DPS") and NYSERDA in April 2018, ¹⁸ outlined a plan for substantially increasing the adoption of energy efficiency across all sectors of New York State's economy. The NE: NY Whitepaper concluded that increasing the adoption of energy efficiency in the LMI customer market segment will provide multiple benefits not only in the form of energy and emissions reductions, but also through the delivery of more sustainable impacts for households and building owners as part of a comprehensive approach for addressing energy affordability. Given the size of the LMI market segment and the unique barriers faced by LMI households and building owners, the NE: NY Whitepaper outlined a number of policy, programmatic, and funding considerations for increasing adoption of energy efficiency. ¹⁹ The PSC adopted many elements of this proposal into its Accelerated Efficiency Order, issued in December 2018. ²⁰

Signed into law by Governor Cuomo in July 2019, the CLCPA outlined an ambitious climate and equity agenda for New York State that includes requirements for investment of resources to benefit disadvantaged communities, as well as requirements for the PSC to create programs to benefit LMI and disadvantaged communities and mechanisms to track the adoption of clean energy solutions in the LMI customer market segment.²¹ It is expected that the CLCPA will be operationalized in the coming years. The Program Administrators will monitor developments and incorporate requirements related to implementation of the CLCPA, including the direction of benefits to disadvantaged communities, as part of the implementation of the Statewide LMI Portfolio.

In addition to the energy and environmental policies that shape this portfolio, New York State also has ambitious policies to advance affordable housing across the state. In 2017, Governor Cuomo announced the New York State Housing and Homelessness Plan, ²² to create 100,000 units of affordable housing and an additional 6,000 units of affordable

¹⁸ See, NE: NY Proceeding, New Efficiency: New York report (filed April 26, 2018).

¹⁹ The NE: NY White paper included several recommendations for improving the adoption of energy efficiency in the LMI market segment, including the development of a comprehensive and effective approach to energy efficiency for LMI residents, and the allocation of at least 20% of any new energy efficiency funds to the LMI market segment.

²⁰ NE: NY Proceeding, Order Authorizing Accelerated Energy Efficiency Targets (issued December 13, 2018) ("Accelerated Efficiency Order").

²¹ Chapter 106 of the Laws of 2019. CLCPA is available at https://legislation.nysenate.gov/pdf/bills/2019/S6599.

²² https://www.governor.ny.gov/news/governor-cuomo-announces-major-milestone-creating-and-preserving-over-62000-units-

 $[\]frac{affordable\#:\text{``:text=The\%20Housing\%20and\%20Homelessness\%20Plan,housing\%20through\%20multiple\%2}{0State\%20agencies.}$

housing. Further, the City of New York advanced the Housing New York 2.0 plan in 2017, with goals to build or preserve 300,000 homes.²³ With a focus on increasing the availability and quality of affordable housing across the state, there is an enhanced opportunity for improving coordination with housing agencies to increase the energy efficiency of within affordable housing, which can also provide important co-benefits of improved health outcomes and comfort of tenants, reduced operating costs for building owners, and resiliency of the buildings.

2. Statewide LMI Portfolio

This Implementation Plan creates a statewide portfolio of energy efficiency programs for LMI customers that allows the Program Administrators to address energy affordability in a holistic, coordinated manner. This portfolio approach will also: (1) improve the experience of and ultimate impact for LMI customers seeking to access clean energy services; (2) reduce administrative costs; and (3) provide more consistent and streamlined participation for service providers.

The Statewide LMI Portfolio aligns LMI investments that NYSERDA is making through the CEF and investments that the Utilities will make under the Implementation Order and the Accelerated Efficiency Order. Through 2025, the Program Administrators will commit over \$880 million²⁴ in clean energy investments through the LMI Portfolio. Beyond the LMI Portfolio, NYSERDA and the Utilities are advancing initiatives that will benefit disadvantaged communities through the Clean Energy Fund and the Utility System Energy Efficiency Plans, including initiatives that contribute to the reduction of fossil-fuel combustion in facilities located in EJ areas or disadvantaged communities, workforce training and development focusing on priority populations, and improving access to solar for LMI or otherwise disadvantaged communities and affordable housing.²⁵

2.1 LMI Portfolio and Program Administration

The Program Administrators will leverage their respective strengths in the development and implementation of the Statewide LMI Portfolio. The blending of the statewide reach

²³ https://www1.nyc.gov/assets/hpd/downloads/pdfs/about/housing-new-york-2-0.pdf.

²⁴ \$540 million in funding from the CEF and \$340 in Utility funding.

²⁵ Through the CEF, NYSERDA has invested \$108 million to provide access to workforce training and development opportunities, with a focus on priority populations including residents of LMI communities and underrepresented populations including women and people of color, and disconnected youth. In June 2020, NYSERDA filed the 2020-2025 Operating Plan for NY Sun, which outlines \$200 million of investments to increase access to solar for LMI households, disadvantaged and EJ communities, and affordable housing as part of the NY Sun Solar Equity Framework. Beyond workforce development and LMI programs, the utilities and NYSERDA administer programs that provide incentives to improve the energy efficiency and reduce fossil fuel combustion in commercial, industrial, and institutional buildings.

and market development components of NYSERDA's CEF with existing Utility resource acquisition and customer relationship expertise, as well as increased LMI funding, will enable the LMI Portfolio to better address the barriers and challenges to expanding the reach of energy efficiency initiatives across the LMI customer market segment holistically. Section 4 Statewide LMI Portfolio Initiatives of this Plan provides more detail about the working relationship among the Program Administrators.

2.2 Statewide LMI Portfolio Objectives

The Accelerated Efficiency Order provides a list of broad and wide-reaching objectives for the Statewide LMI Portfolio. ²⁶ In developing this Plan, the Program Administrators used the guidance provided by the Accelerated Efficiency Order to establish clear objectives for the Portfolio, which can be effectively measured and assessed by the Program Administrators, the Commission, and other stakeholders, including through the tracking of Performance Metrics, which are described below. Specifically, the Portfolio establishes the following key objectives:

- Achieve savings goals within budget;
- Increase the number of customers served annually;
- Encourage customer adoption of comprehensive efficiency projects;
- Encourage new affordable housing to adopt more energy efficient profiles;
- Increase LMI customer and affordable housing owner awareness of the Portfolio's energy efficiency programs and offerings;
- Achieve high customer satisfaction;
- Improve energy affordability for LMI customers; and
- Increase administrative efficiencies.

2.3 Implementation Plan Development and Maintenance

In many cases, the implementation of the Portfolio will require consideration of the alignment of initiatives and investments that the Program Administrators already have in place, such as implementation contracts. The Implementation Order directs the Program Administrators to implement new initiatives as soon as possible but acknowledges that it will take time from the approval of the Implementation Plan to do so.²⁷ As such, 2020 is a transition year in which existing initiatives will continue or be transitioned, alignment between existing initiatives and investments will take place, and new or modified

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²⁶ NE: NY Proceeding, Accelerated Efficiency Order, p. 53.

²⁷ NE: NY Proceeding, Implementation Order, p. 101.

initiatives will be developed to launch beginning in 2021.²⁸ Throughout this Plan these transitional milestones are broken up as such:

- Current Status outlines what initiatives are currently being offered in each sector.
- Transitional Phase outlines the transitional elements that will be developed for each initiative and will identify the remaining decisions and directions to be developed prior to full implementation.
- Full Implementation outlines the launch of modified or new initiatives. It is important to note that this is not the final state and as these initiatives evolve over time they will continued to be re-evaluated for improvements.

This Implementation Plan outlines the transition required from the initiatives that are offered to LMI customers today to a modified and new set of initiatives. The Program Administrators have discussed and outlined the direction that each sector is aiming to move towards. It is noted that not all the details have been finalized due to the complex nature of implementation and coordination of initiatives among the Program Administrators and external stakeholders. The Statewide LMI Portfolio Initiatives section describes the decisions that have been reached as well as the remaining decisions and collaboration the Program Administrators will be discussing in 2020 and future years.

The Program Administrators have identified several complex coordination and administration elements that must be addressed after this filing to fully achieve the Plan's objectives, such as administrative efficiencies and reaching more LMI households. Program Administrators have started to address some elements but due to their complexity, more work is required. Other elements of Portfolio administration that the Program Administrators will need to work through before the existing programs reach the Full Implementation phase include: (1) data sharing between the Utilities and NYSERDA; (2) issues related to evaluation, measurement, and verification ("EM&V"); (3) implementation contractor procurement; (4) and marketing.

In accordance with the Implementation Order,²⁹ the Implementation Plan will be updated on an annual basis, as informed by Portfolio performance, input from stakeholders, and deliberation amongst the Program Administrators. When substantive modifications to the LMI Portfolio are made, the Program Administrators will file a revised

²⁸ The Program Administrators note that future waves of the COVID-19 pandemic may necessitate the modification of program launch and transition plans.

²⁹ NE: NY Proceeding, Implementation Order, pp. 101-103.

Implementation Plan. When minor modifications to the LMI Portfolio are made, a summary of revisions will be submitted to DPS on a quarterly basis.

Annual reporting and Plan updates by the Program Administrators will consist of:

- Joint filing of updated LMI Implementation Plan annually with updates on initiative offerings that describes any modifications of the LMI Portfolio based on program performance, input from stakeholders, and discussion among the LMI Management Committee (see, Section 2.4.1); and
- Joint filing of a Statewide LMI Program Annual Report detailing the program's performance through the previous calendar year and any substantive findings and planned areas for improvement.

2.4 Portfolio Planning and Calibration

The development and calibration of the Statewide LMI Portfolio will be informed through various inputs, including program performance and market insight from stakeholders, and will be overseen by the Joint LMI Management Committee. Stakeholder engagement will be a critical element to the success of the Statewide LMI Portfolio, and the Program Administrators will develop multiple avenues for engaging with stakeholders to receive feedback on current programs and identify opportunities for future initiatives.

The Program Administrators note the significant impact that the COVID-19 pandemic has had on LMI communities and on the execution of clean energy programs across the state, as well as the uncertainty regarding the future track of the pandemic. As 2020 progresses, the Program Administrators will work with stakeholders, external administrators of energy efficiency programs and communities to adapt initiatives in light of the COVID-19 pandemic and the resulting economic conditions.

2.4.1 Joint LMI Management Committee

The Joint LMI Management Committee ("Committee") will be responsible for the review and calibration of the Statewide LMI Portfolio of initiatives administered by the Program Administrators. Committee meetings will provide a setting for in-depth assessment of the performance of the Portfolio's progress toward meeting the objectives outlined in the Statewide LMI Portfolio Objectives section of this document. Opportunities for program development and deployment synergies will be evaluated on an ongoing basis. The Committee will review and assess input from stakeholders as provided in the regular course of Portfolio activities, as well as the formal stakeholder activities described in Section 2.4.2, and incorporate such input into Portfolio initiatives and services where appropriate. While the LMI Management Committee provides the periodic and necessary

review and assessment of the initiatives that comprise the Statewide LMI Portfolio, Program Administrators will continually make necessary operational changes in response to changing customer needs and evolution of markets. In the case of substantive changes to the Portfolio or individual initiatives, modifications will be reflected in a revised Implementation Plan which will be jointly filed following engagement with Staff.

Structure

The Committee will be comprised of representatives from each of the Program Administrators. The Committee will have co-chairs, one from the Utilities and one from NYSERDA. Utility co-chairs will serve a single-year term. DPS Staff will also participate in the Committee in an oversight and consultatory role. In addition to serving as co-chair, NYSERDA will provide policy guidance for LMI initiatives given its policy function on the Climate Justice Working Group, the Climate Action Council, and the Energy Planning Board.

Committee Activities

The Committee will meet monthly and will focus on the performance, operational, and technical aspects of the administration of the Portfolio including reviewing the status of current initiatives, assessing challenges and opportunities related to initiatives, and evaluating new initiative offerings. In addition, the Committee will be responsible for assessing and incorporating stakeholder input.

The Committee will engage with stakeholders and other interested parties through various channels, including technical conferences, webinars, and meetings like the Low-Income Forum on Energy ("LIFE"). ³⁰ Input received from stakeholders will be published annually, along with discussion and next steps from the Committee. The Committee will publish an annual schedule of expected stakeholder engagements each year. Stakeholders may also submit comment for Committee consideration at any time at LMIforum@nyserda.ny.gov.

The Committee will coordinate with relevant existing working groups such as the Low-Income Energy Task Force, 31 the Green Jobs-Green New York ("GJGNY") Advisory

30 See, https://www.nyserda.ny.gov/All-Programs/Programs/Low-Income-Forum-on-Energy#:~:text=LIFF%2C%20the%20Low%2DIncome%20Forum safe%2C%20affordah

Energy#:~:text=LIFE%2C%20the%20Low%2DIncome%20Forum,safe%2C%20affordable%20and%20reliable %20energy.

³¹ The Low-Income Energy Task Force was established in the PSC 2016 Order Adopting Low Income Program Modifications and Directing Utility Filings and is comprised Of NYS Department of Public Service, NYSERDA, NYS Office of Temporary and Disability Assistance, and NYS Homes and Community Renewal. The Task Force has the goal of improving the coordination between key income-eligible energy programs.

Council,³² and the working groups responsible for informing the work under the CLCPA, including the Climate Justice Working Group, the Just Transition Working Group,³³ and the Environmental Justice Advisory Board.³⁴ The Committee will also coordinate with the work conducted via DPS Staff's Performance Management and Improvement initiative under the NE: NY proceeding.³⁵

2.4.2 Stakeholder Engagement

The effectiveness of the Portfolio will largely depend on how well the programs work for customers and communities. Residents, communities, service providers, and other stakeholders can provide beneficial insight that may otherwise not be readily and universally apparent. In combination with EM&V activities and Performance Metrics results, the Program Administrators anticipate that stakeholder engagement and feedback will give the Committee a holistic view of the Statewide LMI Portfolio. This wider view allows for improvement efforts and adjustments in alignment with market conditions. To inform the development of the Statewide LMI Portfolio and the ongoing operations of programs, the Program Administrators will seek regular opportunities to engage with market partners and communities.

The Committee will conduct two stakeholder input sessions a year to review program and Portfolio performance and discuss input from residents, communities, and other market partners. The Committee will also leverage existing opportunities for engagement such as the annual LIFE conference. In addition, the Program Administrators will conduct annual focus groups and work with community-based organizations to develop a process for incorporating input from communities into the decisions made on the LMI Portfolio.

Details on stakeholder engagement, including a schedule of meetings and notes from meetings will be posted on the web-based customer hub platform that will be branded as

³² See, https://www.nyserda.ny.gov/Researchers-and-Policymakers/Green-Jobs-Green-New-York/Advisory-Council.

³³ Established by the CLCPA, the Just Transition Working Group will be responsible for advising the Climate Action Council and undertaking range of activities pertaining to training and workforce development for disadvantaged communities, and segments of the population that may be underrepresented in the clean energy workforce such as veterans, women and formerly incarcerated persons.

³⁴ In December 2019, Governor Cuomo signed legislation creating an Environmental Justice Advisory Board. The Advisory Board is responsible for creating a model environmental justice policy that ensures that New Yorkers, regardless of race, income, gender and national origin, have a right to fair treatment and meaningful involvement in the development of regulations and policies that affect the quality of their environment.

³⁵ NE: NY Proceeding, "Commencement of Energy Efficiency & Building Electrification Performance Management & Improvement Process" (filed May 29, 2020.) See also, Implementation Order, pp. 60-61.

"NY Energy Advisor: for Income Eligible Energy Efficiency Programs" ("NY Energy Advisor") (See, Section 5.2, below, for additional information).

In early 2022, the Committee, in consultation with DPS, will examine the results of stakeholder engagement activities and recommend changes to schedules, formats or frequencies which may be beneficial or appropriate.

2.5 Statewide LMI Portfolio Performance Metrics

The Program Administrators will measure the success of the Statewide LMI Portfolio in meeting the objectives identified above by tracking the Performance Metrics shown in Table 1. Performance Metrics are foundational to assessing the Statewide LMI Portfolio's success and identifying areas for improvement. The Performance Metrics will provide a roadmap for future Portfolio evaluation, guiding the investigation and informing the basis for measuring performance. The objectives and corresponding Performance Metrics will be reviewed on a periodic basis and updated as appropriate to reflect Portfolio maturity. The list of objectives in Table 1 are not the only key objectives of this Portfolio but have been identified as objectives that should be tracked to report performance of this Portfolio. The Program Administrators will report the Performance Metrics related to savings and spending in Table 1 quarterly. Appendix D describes how the remaining Performance Metrics will be assessed and reported.

Table 1: LMI Portfolio Objectives and Performance Metrics

Portfolio Objective	Performance Metrics
Portfo	olio Savings & Spend
	MWh annual and lifetime savings achievements
Achieve Portfolio-wide savings goals	MMBtu annual and lifetime savings achievements
within budget	CO2e Emission Reduction (metric tons) annual and lifetime savings achievements
	Budget spent
Por	tfolio Participation
Increase the number of customers served annually	Number of participants ³⁶ served

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³⁶ For the purposes of this Plan, the definition of "participants" depends on the initiative type, and may refer to households, multifamily buildings and/or tenants.

Portfolio Objective	Performance Metrics
Adopt comprehensive ³⁷ efficiency	Energy savings acquired from comprehensive
projects	projects
Portfolio	o Customer Experience
Increase customer Portfolio awareness	Percentage of LMI customers that learn about Portfolio initiatives from various sources (e.g., NY Energy Advisor website, Utility or NYSERDA outreach materials, contractors, etc.)
Achieve high customer satisfaction	Participation satisfaction rating
Advance energy affordability for LMI customers	Participant bill savings, annual and lifetime
Po	rtfolio Efficiencies
Increase efficiencies of Portfolio investments ³⁸	Cost and burden associated with all LMI Portfolio investments

2.6 Eligibility Thresholds

For the purposes of establishing categorical eligibility and creating consistency in the market where possible, the income thresholds used to determine eligibility for LMI initiatives are aligned with other state and federal energy and housing programs. The definition of "low-income" is a household income that is at or below 60% of the State Median Income and is consistent with income eligibility criteria used by the Home Energy Assistance Program ("HEAP")³⁹ and the Weatherization Assistance Program ("WAP"). This establishes the receipt of HEAP or WAP as an income eligibility proxy rather than relying on determinations from NYSERDA and the Utilities. The definition of "moderate-income" is a household income that is below 80% of the Area Median Income or State Median Income, whichever is greater, and aligns with federal Housing and Urban Development ("HUD") definitions for eligibility for affordable housing.

For the purpose of establishing categorical eligibility for affordable multifamily initiatives, affordable housing is defined as buildings that have regulatory agreements with a housing agency or in which at least 25% of the units are, or are expected to be, occupied

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³⁷ NE: NY Proceeding, Accelerated Efficiency Order, p. 36. The Accelerated Efficiency Order states "Comprehensive programs that combine lower-cost effective measures with higher-cost-effective measures can optimize the total reduction that can be attained through a single customer transaction. Further, comprehensive building efficiency improvements often result in the installation of measures with longer effective useful lives (EUL), resulting in savings that persist well into the future."

³⁸ Such efficiencies may apply to categories including, but not limited to, administration, implementation, marketing, incentives, and EMV.

³⁹ Federal Low-Income Home Energy Assistance Program regulations establish the maximum income level allowed at 150% of the poverty level, except where 60% of SMI is higher. New York State has adopted the higher of 60% SMI or 150% Federal Poverty Level as the maximum income level allowed. Information on HEAP to be found at: https://otda.ny.gov/programs/heap/.

by households earning not more than 80% of Area Median Income or State Median Income, whichever is greater. 40

Where categorical eligibility cannot be established for programs, income screening may be conducted on an individual customer or building basis. Consistent with the Implementation Order, the Utilities and NYSERDA will develop necessary processes and agreements for NYSERDA to conduct income verification for participation in LMI initiatives, where necessary. In addition to applying traditional income eligibility criteria, the Program Administrators will seek to incorporate alternate methods of determining eligibility for programs, such as geographic eligibility, census-tract, demographic or other means of categorical eligibility. This is expected to become increasingly important as the state seeks to invest more in disadvantaged communities per the CLCPA, and as Program Administrators seek more community-based and streamlined ways of delivering services.

3. Budgets, Targets, and Other Impacts

The Statewide LMI Portfolio will consolidate the initiatives and associated budgets and targets of the CEF and the Utilities. The Implementation Order and Accelerated Efficiency Order combined approved a minimum of approximately \$302 million in statewide Utility incremental budgets for LMI gas and electric programs through 2025. As defined below, an additional \$33 million in other utility funding will be allocated to this Portfolio. Through the CEF, NYSERDA will incorporate \$540 million into the Portfolio to fund LMI clean energy initiatives over the same time period. Combined, the Statewide LMI Portfolio will invest over \$880 million in LMI clean energy initiatives, with annual targets of 8,066,367 MMBtu and 476,204 MWh. Additionally, in their Long Island territory (KEDLI), National Grid will be investing additional funding from their SEEP

⁴⁰ Buildings that do not pay into the System Benefits Charge, are not eligible for services through the LMI Portfolio of initiatives. However, NYSERDA administers Regional Greenhouse Gas Initiative ("RGGI") funding, which can be used in some cases to fund projects located in municipal utility territory. The Program Administrators will coordinate with PSEG-Long Island to coordinate where necessary to ensure consistency in program offerings for income-eligible customers across the state.

⁴¹ Examples include customer participation in housing or social service programs.

⁴² The \$540 million in CEF funding builds on the \$255 million that is already committed in the LMI Chapter of the CEF, which outlines the investments that have been made to advance energy affordability and access to clean energy solutions through the CEF. With the filing of this Implementation Plan, NYSERDA will close out the LMI Chapter of the CEF and include all and future investments in clean energy in the LMI market segment in this Implementation Plan.

⁴³ Some NYSERDA investments have longer project timelines than through 2025, such as incentives for affordable new construction. While all funding will be committed by 2025, it may require an additional 4 years for all funds to be expended. This dynamic is reflected in budget and target tables in this Plan.

portfolio to support the Home Energy Affordability Team (HEAT) program. Furthermore, NFGDC's pre-existing LMI funding and performance targets that were approved in its February 2019 Energy Efficiency Transition Implementation Plan/System Energy Efficiency Plan ("ETIP/SEEP") filing to support its Low Income Usage Reduction Program (LIURP) are also incorporated into the present Statewide LMI Portfolio, and will continue to be included in Statewide LMI Portfolio in the future. Initiatives funded through the LMI Portfolio will include a combination of statewide initiatives, initiatives tailored to local needs, coordinated outreach and education, and market development⁴⁴ activities.

3.1 Portfolio-Level Budgets⁴⁵

This section addresses the Program Administrators' plans to fund the LMI Portfolio from 2020-2025. The information provided in this section may differ from the budgets listed in the Implementation Order and may change in future years due to the flexibility of budgets over years and between gas and electric initiatives, if applicable. For some Program Administrators, the budgets approved in the Implementation Order provide for the full recovery of all LMI Portfolio costs, whereas for other Program Administrators, funding sources beyond those approved in the Implementation Order will fund the Portfolio costs. The full breakdown of budget elements by market segment and Program Administrator is included in Appendix B.

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⁴⁴ As part of the Portfolio, the Program Administrators will fund activities intended to increase market uptake of energy efficiency solutions by providing technical assistance to building owners, builders, developers and housing agencies, and conducting pilots and demonstrations to test and validate new technologies and approaches for delivering energy efficiency services in the LMI market segment.

⁴⁵ NYSERDA budgets presented here are on an expenditure-basis. Budgets are presented on a commitments basis in Appendix B.

⁴⁶ NE: NY Proceeding, Implementation Order, pp. 65-69.

Table 2: Portfolio Electric Budgets (\$000)⁴⁷

Program Administrator	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Central Hudson	42	105	130	165	208	264					913
Con Edison	7,479	5,864	7,552	9,650	11,739	14,923					57,207
National Grid (Niagara	356	517	951	1,645	2,314	3,117					8,900
Mohawk)											
NYSEG	113	756	1,049	1,535	1,942	2,463					7,857
Orange & Rockland	23	383	197	251	305	344					1,501
RG&E	52	460	594	791	880	1,083					3,860
NYSERDA ⁴⁸	36,261	86,047	69,531	74,364	88,221	90,740	46,906	25,412	18,914	3,603	540,000
Total	44,325	94,130	80,004	88,401	105,608	112,933	46,906	25,412	18,914	3,603	620,238

Table 3: Portfolio Natural Gas Budgets (\$000)

Program Administrator	2020	2021	2022	2023	2024	2025	Total
Central Hudson	88	198	306	391	501	638	2,122
Con Edison	4,443	13,682	17,622	22,516	27,390	34,821	120,474
National Fuel Gas	4,799	5,396	6,123	6,400	6,859	7,419	36,996
Distribution Company							
National Grid (KEDLI)	540	3,421	4,054	4,682	5,508	6,441	24,645
National Grid (KEDNY)	1,027	1,549	2,759	4,187	6,019	8,269	23,809
National Grid (Niagara	831	1,206	2,219	3,839	5,400	7,273	20,767
Mohawk)							
NYSEG	351	1,420	2,183	3,452	4,898	6,259	18,564
Orange & Rockland	53	438	539	689	839	946	3,503
RG&E	200	832	1,210	1,738	2,343	2,813	9,136
Total	12,330	28,142	37,016	47,894	59,756	74,879	260,016

⁴⁷ Expenditures in years 2026-2029 reflect projected NYSERDA investments that have longer project timelines, such as incentives for affordable new construction, as noted above. While all funding will be committed by 2025, it may require an additional 4 years for all funds to be expended.

⁴⁸ NYSERDA budgets are based on electric collections, and are presented in the electric budget table, however the funds are administered on a fuel neutral basis.

3.2 Portfolio-Level Targets⁴⁹

This section outlines the Utilities' and NYSERDA's Portfolio savings targets from 2020-2025. Timelines of projected targets may slightly shift year to year within the broader goal of meeting the total MWh and MMBtu targets by 2025. The full breakdown of targets by market segment and Program Administrator is included in Appendix B.

Table 4: Portfolio Targets (Annual MWh)

Program Administrator	2020	2021	2022	2023	2024	2025	2026	2027	Total
Central Hudson	75	180	224	284	359	456			1,579
Con Edison	29,000	10,171	13,100	16,738	20,361	25,885			115,255
National Grid (Niagara Mohawk)	1,731	674	1,427	2,631	3,791	5,182			15,438
New York State Electric & Gas	317	3,617	3,967	4,523	3,644	4,241			20,309
Orange & Rockland	30	929	290	375	460	520			2,604
Rochester Gas & Electric	266	2,889	3,051	3,281	1,808	2,039			13,335
NYSERDA	11,908	31,099	41,252	55,248	59,329	60,016	30,284	18,548	307,684
Total	43,327	49,560	63,312	83,081	89,752	98,340	30,284	18,548	476,204

⁴⁹ NYSERDA savings targets presented here are on an acquired basis. Savings targets are presented on a commitments basis in Appendix B.

Table 5: Portfolio Natural Gas Targets (Annual MMBtu)

Program Administrator	2020	2021	2022	2023	2024	2025	2026	2027	Total
Central Hudson	827	1,824	2,821	3,613	4,631	5,951			19,666
Con Edison	40,834	126,661	163,140	208,442	253,563	322,359			1,114,999
National Fuel Gas	49,468	56,589	64,813	67,371	71,627	76,812			386,681
National Grid (KEDLI)	4,995	31,670	37,537	43,345	50,723	59,624			227,894
National Grid (KEDNY)	9,503	14,340	25,542	38,760	55,719	76,550			220,414
National Grid (Niagara	7,690	11,161	20,546	35,538	49,989	67,327			192,251
Mohawk)									
New York State	2,450	19,000	24,210	32,720	42,898	52,014			173,293
Electric & Gas									
Orange & Rockland	418	8,880	4,052	5,257	6,470	7,350			32,428
Rochester Gas &	1,533	12,990	15,710	19,463	19,729	23,144			92,569
Electric									
NYSERDA ⁵⁰	182,042	781,307	861,870	1,019,421	1,074,134	1,085,924	376,552	224,921	5,606,170
Total	299,760	1,064,424	1,220,242	1,473,930	1,629,483	1,777,055	376,552	224,921	8,066,367

⁵⁰ While NYSERDA does not administer natural gas budgets, NYSERDA does project MMBtu savings due to the fuel neutral nature of the CEF funds.

3.3 Portfolio-Level Impacts

Table 6 provides a collective view on Portfolio-level metrics that will be quantified and reported quarterly and can be viewed on the Clean Energy Dashboard. 51 The Portfolio-level performance metrics are planned achievements based on annual budgets and targets. A breakdown of performance metrics by sector is included in Appendix C.

Table 6: Portfolio-Level Performance Metrics

Performance Metric	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Annual MMBtu Savings	299,760	1,066,680	1,220,242	1,473,930	1,629,483	1,777,055	376,552	224,921			8,068,623
Lifetime MMBtu Savings	5,223,521	20,116,622	22,994,822	27,654,272	30,379,000	32,719,800	7,510,069	4,490,485			151,088,590
Annual MWh Savings	43,327	49,468	63,312	83,081	89,752	98,340	30,284	18,548			476,112
Lifetime MWh Savings	447,336	777,910	1,010,597	1,351,808	1,456,906	1,549,079	594,159	370,734			7,558,530
CO2e Emission Reduction (metric tons) Annual	37,613	81,455	96,545	119,922	131,529	143,671	35,170	21,237			667,142
CO2e Emission Reduction (metric tons) Lifetime	501,496	1,432,114	1,695,627	2,115,896	2,313,553	2,483,576	688,670	424,202			11,655,134
Annual participant bill savings ⁵² (\$000)	\$2,594	\$8,005	\$10,470	\$11,066	\$11,896	\$13,091					\$57,122

See, https://rev.ny.gov/cleanenergydashboard
 Participant bill savings are calculated following guidelines described in Case 16-01008 MTPA Phase 1 Report July 17, 2017.

Performance Metric	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Lifetime participant bill savings (\$000)	\$43,698	\$147,333	\$189,557	\$202,906	\$217,601	\$236,210					\$1,037,305
Leveraged funds ⁵³ (\$000)	\$50,641	\$98,141	\$95,297	\$180,799	\$209,311	\$220,370					\$854,559
Annual Participants ⁵⁴	517,575	112,298	108,498	130,013	125,092	134,811					1,128,287

⁵³ Defined as the direct private investment from incentives and service initiatives which includes co-funding of pilots or projects at specific locations, including hard costs for efficiency/renewable/distributed generation, hard costs for metering and monitoring equipment like EMS/BMS, and soft costs of systems that occur during the time frame of program administrator engagement on the pilot or project.

⁵⁴ "Annual Participants" includes Customer Awareness, Outreach, and Engagement initiatives (see, Section 5, below) that tend to reach a large number of customers. A detailed breakout by sector is included in Appendix C.

3.4 Budgets for Affordable Multifamily Buildings

The Accelerated Efficiency Order directed that at a minimum, 40% of the collective incremental LMI funding be committed to serving affordable multifamily buildings. ⁵⁵ As outlined in this plan, 65% of incremental energy efficiency budgets and 51% of total Portfolio budgets have been allocated to the affordable multifamily market segment. Budget flexibility across the Portfolio will need to be maintained to ensure the 40% threshold is met cumulatively. Appendix A outlines the investments by sector and the percentage of incremental funding and of all funding that is planned to be spent on affordable multifamily initiatives.

4. Statewide LMI Portfolio Initiatives

The following sections provide an overview of the initiatives and investments that the Program Administrators are undertaking to address the barriers to adoption and increase access to energy efficiency solutions across the LMI market segment. The Portfolio includes initiatives targeting existing 1-4 family homes, existing affordable multifamily buildings, affordable new construction, beneficial electrification, as well as funding for customer engagement and pilots with new approaches for adoption of energy efficiency for LMI residents and communities. The initiatives highlight the work that will be undertaken to transition from the current set of programs and investments to the more cohesive Portfolio that is jointly administered by the Program Administrators. Beyond the transition of the initiatives, the Portfolio is expected to evolve over time, as outlined in Section 2.4: Portfolio Planning and Calibration.

4.1 Existing 1-4 Family Homes

The Program Administrators will seek to improve overall energy affordability for LMI households living in 1-4 family homes with no-cost or subsidized energy efficiency upgrades and energy education for both renters and homeowners through the EmPower New York ("Empower NY")⁵⁶ program. Low-income households are eligible for no-cost energy efficiency improvements, while moderate-income households are eligible for incentives of 50% of the cost of the energy efficiency upgrades. Customers may also be eligible for no-cost energy audits and low-cost financing of clean energy upgrades through GJGNY.

⁵⁵ NE: NY Proceeding, Accelerated Efficiency Order, p.55.

⁵⁶ For the purposes of this Implementation Plan, the Program Administrators continue to use "EmPower NY" as the brand for the Existing 1-4 Family Homes sector. During the balance of 2020, the Program Administrators will assess and determine whether to retain or replace the Empower New York brand, as part of a broader focus on marketing and branding for the Statewide LMI Portfolio.

Utilities will prioritize the enrollment of low-income households with high energy consumption into the EmPower NY program, to help reduce energy use and deliver long term energy burden relief. In addition, households can be referred into EmPower NY by human service organizations and community-based organizations. The program will be coordinated statewide with the WAP and HEAP.

Objectives:

- Reduce energy consumption and provide more sustainable energy burden relief for income-eligible households through in-home energy education and energy efficiency improvements
- Identify and address energy-related health and safety issues in homes
- Expand the impact and reach of energy efficiency investments though program coordination
- Engage and educate LMI customers on available programs and improve access to the benefits of clean energy
- Improve the referral of low-income households with high energy consumption to reduce energy burden

Overview

Current Status

In 2020, the 1-4 family LMI customer market segment is served by several programs including EmPower NY and Assisted Home Performance with ENERGY STAR ("AHPwES") administered by NYSERDA statewide, the Low-Income Usage Reduction Program ("LIURP") in National Fuel Gas ("NFGDC") territory, and the HEAT program in the National Grid-Long Island territory. The EmPower NY, LIURP, and HEAT programs are available to low-income households and provide no-cost energy services, while the AHPwES program is available to both low and moderate-income households, providing a 50% cost share towards the cost of an energy efficiency work scope. Utilities currently refer customers to EmPower NY in accordance with currently effective Commission policy.

The EmPower NY program uses funding from multiple sources such as RGGI and HEAP to increase the reach of the program across the state. In addition, the program is closely coordinated with the WAP and HEAP.

Transitional	For the helence of 2020, the Drogram Administrators will continue to
Transitional Phase	For the balance of 2020, the Program Administrators will continue to offer the programs as they are currently designed, while programs and funding are transitioned into a cohesive statewide approach. During this time, the Program Administrators will combine LMI programs to provide a more streamlined process for service providers and
	customers; develop enhancements to the incentive structure to include incorporation of a graduated incentive schedule; develop a no-cost direct install component available to moderate-income customers; align eligible measures; and streamline and improve the application and intake process, which includes strengthening the identification and referral of eligible customers from the Utilities to NYSERDA.
	During the program design activities, the Program Administrators will engage with service providers, customers, and other stakeholders to obtain feedback and insights to inform the final program design.
Full Implementation	Starting in 2021, the statewide program featuring the modifications developed during 2020, will be launched. EmPower NY will be administered statewide with close coordination with PSEG-LI on Long Island. The redesigned program will provide for consistency in level of service and streamlined participation for both customers and service providers. In addition to the modifications to the program design, the Program Administrators will carry forward the close coordination with state and local programs such as WAP, HEAP, and local housing programs to optimize the deployment of clean energy investments in the program.

Target Market and Delivery Method

Market	Low income owners and renters in 1-4 family buildings meeting income
Segment	eligibility thresholds
Addressed	In instances where a tenant in a multifamily building is referred for program services, the tenant will be eligible for in-unit work through the Statewide Affordable Multifamily Program, with landlord approval. The building owner will also be encouraged to conduct a more comprehensive upgrade of the building.
Delivery	EmPower NY is delivered through a network of approximately 200
Method	weatherization and home performance contractors across New York State, except for Long Island, where HEAT is delivered through several home performance contractor partners.

 57 The Program Administrators note that any continuing effects of the COVID-19 pandemic may modify program launch approaches.

Low-income households may be directly referred into EmPower NY or HEAT by Utilities, community-based organizations, human service providers, and local government.

Where possible, low-income projects will be coordinated with WAP by participating contractors that are also WAP subgrantees.

Outreach for LMI households will be conducted through statewide and local marketing efforts, NY Energy Advisor website, community-based partners, and participating contractors.

Eligible Measures and Incentive Structure

Eligible Measures

- Comprehensive home assessment
- In-home energy education
- Building shell improvements (*i.e.*, insulation, blower-door assisted air sealing, weather stripping)
- Electric load reduction (*e.g.*, refrigerator, freezer, high-efficiency lighting)
- Heating, Ventilation, and Air Conditioning ("HVAC") and mechanical system repairs, tune-ups and replacements.
- Domestic Hot Water ("DHW") improvements and replacements
- Controls
- Minor health and safety improvements (*i.e.*, gas leak repairs, smoke and carbon monoxide ("CO") detectors, combustion safety, venting)
- Low-flow water devices

The HEAT program does not provide any electric saving measures as it is a gas only program but coordinates closely with PSEG-LI's LMI program.

Incentive Structure

Low-income (statewide other than for HEAT program): 100% subsidy for all measures; projects are capped at \$7,000 per unit.⁵⁸ The HEAT program also pays 100% subsidy for all measures and aims to review projects and utilize other funding resources once they exceed \$7,500 excluding the home energy assessment.

Moderate-income: currently customers are eligible for a 50% subsidy on eligible measures/work scopes.

With the rollout of the redesigned EmPower NY program in 2021, LMI customers will be eligible for incentives according to a graduated incentive scale, based on household income, with modifications to project cost caps. For all income-eligible customers, direct install services will be provided at no cost. The HEAT program will align incentives with the statewide program.

⁵⁸ The incentive structure and per project cap will be assessed during the program redesign phase.

Stakeholder / Market Engagement

Key Partners	Departments of Social Services
	Offices for the Aging
	Community-based organizations
	Weatherization subgrantees
	NYS Office of Temporary and Disability Assistance
	NYS Homes and Community Renewal
	NYS Office for the Aging

Additional Considerations

Additional	In addition to CEF funds, NYSERDA also incorporates funding from the RGGI
Funding	and HEAP, to increase the number of households served. National Grid (KEDLI) and NFGDC will bring in additional non-LMI funding from their SEEP portfolios to support this program.
GJGNY	No-cost energy audits and low-interest financing are made available through GJGNY. The Program Administrators will coordinate the availability of these services with program incentives to provide customers with the ability to enhance energy upgrades available through the program.

Implementation Milestones (2020-2022)

Implementation milestones will be further developed as the Program Administrators evaluate the current set of initiatives. The Program Administrators note that any continuing effects of the COVID-19 pandemic may modify implementation milestones.

2020	 Redesign of current set of initiatives to better align utility and NYSERDA offers, improve customer experience by reducing administrative burden, and developing a more graduated scale of financial support. Stakeholder engagement to inform redesign of programs Test a model geographic-based eligibility and determine how it can be applied to programs going forward
2021	 Launch of redesigned programs Ongoing stakeholder engagement and coordination with other programs (e.g.; HEAP and WAP)

2022	Calibration of programs, where necessary, to improve impact and reach underserved or otherwise disadvantaged communities
	Ongoing stakeholder engagement and coordination with other programs (e.g.; HEAP and WAP)

Budgets, Targets and Performance Metrics

The annual budgets, targets and performance metrics for this initiative are included in Appendices B and C.

4.2 Existing Affordable Multifamily Buildings

The Program Administrators will administer a set of initiatives to increase the performance of existing affordable multifamily buildings through comprehensive energy efficiency upgrades and additional technical support to address the challenges and barriers of adoption for this sector. This section outlines the approach that Program Administrators will undertake to adapt the existing initiatives today and create a complementary statewide framework. All the sub-initiatives in this section will be complementary of each other to ensure multifamily buildings are able to receive services in a holistic manner. In order to promote comprehensive upgrades, it is essential that the Program Administrators design programs so buildings are able to undertake multiple upgrades and understand the initiatives offered to them. This will require close coordination of the Program Administrators to implement.

Objectives:

- Address cost barriers experienced by owners of affordable multifamily properties
- Integrate energy efficiency into the regular investment and financing cycle of affordable multifamily properties
- Improve awareness and access to energy efficient solutions for tenants and building owners of affordable housing
- Ensure simplified experience for owners of affordable multifamily properties that are navigating multiple ratepayer-supported programs
- Deliver benefits to tenants, while improving the overall efficiency of the building
- Address the barrier of split incentives between owner and tenant
- Build capacity among housing agencies to incorporate energy efficiency into affordable multifamily buildings
- Direct at least 40% of the LMI Portfolio's incremental energy efficiency funds to affordable multifamily initiatives

4.2.1 Statewide Existing Affordable Multifamily Program

The Statewide Existing Affordable Multifamily Program aims to provide a consistent framework across the State such that all existing affordable multifamily building owners, developers and their representatives have access to financial incentives to plan and make energy efficiency upgrades to their buildings. By examining the current landscape, there are opportunities to adjust the programs to achieve economies of scale and reduce duplicative administrative costs.

Overview

Current Status

Existing affordable multifamily buildings are served through utility administered initiatives and NYSERDA administered initiatives. Through the CEF, NYSERDA administers the Multifamily Performance Program ("MPP"), RetrofitNY and Real Time Energy Manager ("RTEM") throughout the State including territories that have a utility administered multifamily program. MPP offers an energy assessment and incentives to assist in the development of a scope of work that will achieve at least 15% energy savings. Buildings receive a construction completion incentive that is calculated per unit, and performance incentives are available to projects achieving higher levels of energy savings. Through MPP, NYSERDA also supports the adoption of Integrated Physical Needs Assessments ("IPNAs") by supporting housing agencies in their development of IPNAs. The RetrofitNY initiative seeks to develop replicable models for conducting deep energy retrofits in affordable multifamily buildings through work with the design, finance, and affordable housing communities and the piloting of retrofit solutions. In addition, RTEM provides access to energy managements solutions for affordable multifamily buildings.

Con Edison, National Grid (KEDLI, KEDNY, and Niagara Mohawk) and NYSEG/ RG&E each offer financial incentives for approved equipment upgrades by measure for affordable multifamily buildings. The building will receive one incentive at the time of construction completion. The incentive is calculated per equipment installed or per MWh/ decatherm ("Dth") saved. Each of these utility programs differs slightly in measures offered and incentive structure. For example, Con Edison has been implementing an affordable multifamily program for several years, which offers increased incentives over market rate incentives for eligible affordable multifamily buildings. National Grid and NYSEG/ RG&E also offer measure-specific incentives for energy efficiency upgrades in multifamily buildings. In addition, the aforementioned utilities offer a Direct Install Program that offers multifamily buildings no-cost installation of easy to install measures in tenant units.

There are strengths and weaknesses to the current state of the affordable multifamily programs across the State. The utilities that have existing affordable multifamily programs have a successful relationship within their

market and have continued to achieve increasing energy savings year over year. There are also significant regional differences in the population of affordable multifamily buildings across the State, which is noteworthy in that even though there will be a statewide framework there will be a need for some regional differences in the program.

Transitional Phase

By removing dual investments of incentives in specific utility territories (Con Edison, NYSEG/RG&E, National Grid) NYSERDA will be able to focus resources on expanding technical assistance offerings and other market development support for this sector.

As part of the transitional state, the Program Administrators will break down the current existing structures to identify a framework to be implemented. The workstreams that will be looked at and included in the new Statewide Affordable Multifamily Program are:

- Measures offered
- Incentive structure
 - Determine how to create an incentive structure that encourages buildings to complete comprehensive upgrades, with flexibility for prescriptive approaches.
 Options include package incentives and/or performance incentives.
- Application process
- Contractor network
- Lead sharing
- Opportunities to leverage external program administrators, as discussed in Section 6, below) and the investments that are already being conducted for affordable multifamily buildings
- Utility coordination in overlapping territories
- Structure of Direct Install
- Increasing the adoption of IPNAs
- Coordination of incentive-based program with technical assistance offerings. Require building owners to complete energy studies and move forward with making equipment upgrades

In addition, the Program Administrators will work with affordable housing agencies and intermediaries to develop an approach for directly incorporating program incentives as part of the capital stack for affordable multifamily buildings that are being refinanced. Opportunities for incentivizing higher energy performance in buildings that are already undertaking other capital improvements or are mid-finance cycle will be explored.

Full Implementation

The Program Administrators have worked on determining the strategy for achieving the shared goals of providing a consistent framework for affordable multifamily building owners and their representatives to have access to incentives. The Program Administrators have decided that NYSERDA will discontinue incentive-based programs in service territories

where utilities administer multifamily incentive programs and that a consistent statewide framework will be created so all buildings have access to similar incentives. In addition, the Program Administrators will ensure participation in the Existing Affordable Multifamily Program is streamlined for property owners and that participants do not need to "shop" between programs. There are complex decisions and directions that the Program Administrators will continue to work on throughout 2020 so that the initiative can be implemented in a cohesive manner between Program Administrators, external agencies that serve affordable multifamily buildings and stakeholders. The Full Implementation is of the Statewide Existing Affordable Multifamily Program will launch in the beginning of 2021.

Target Market and Delivery Method

Market	Affordable multifamily buildings (refer to Section 2.6 for Eligibility
Segment	Thresholds)
Addressed	
Delivery	The current programs are administered by multiple implementation
Method	contractors, and eligible participation contractors in the respective
	programs will complete installations of eligible measures. As part of
	Transitional Phase, the Program Administrators will examine the current
	state of implementation across the State to identify areas for improvement
	to reduce administrative inefficiencies, increase enrollment and promote
	comprehensive upgrades.

Eligible Measures and Incentive Structure

Eligible	Measures include but are not limited to:
Measures	Lighting
	Building envelope
	HVAC
	Elevator modernization
	Variable frequency drive
	Blower fan
	Circulator pump
	Energy management systems
	Boiler
	Pipe insulation
	Water and space heating
	Steam traps
	Boiler clean and tune
	• LEDs
	Faucet aerator
	Showerhead

Incentive	9
Structure	ے

Currently, MPP offers incentives per unit and performance, while utility administered programs offer incentives by measures. The Program Administrators will seek to appropriately develop incentive structures balancing statewide needs with geographical differences of multi-family buildings in the different regions of the State in the Full Implementation state. The goal of this structure will be to promote comprehensive upgrades while maintaining flexibility for prescriptive approaches.

Stakeholder / Market Engagement

Key Partners

NYSERDA has worked with New York State Home and Community Renewal ("HCR") and New York City Department of Housing, Preservation, and Development ("HPD") to offer complementary strategies to the market. This coordination will continue.

The NYC Mayor's Office of Sustainability (specifically, the NYC Retrofit staff) and Con Edison maintain ongoing monthly conversations to coordinate on key energy efficiency topics and current program delivery methods.

Program Administrators will continue to work directly with housing agencies to incorporate funding into preservation projects to offset incremental costs associated with higher performance.

Con Edison is working with their local Public Housing Authorities (*i.e.*, New York City Housing Authority ("NYCHA"), Westchester County Housing Authority ("WCHA")) that are not covered under the System Benefit Charge ("SBC") to provide incentives for gas energy efficiency programs.

Additional stakeholder involvement will occur throughout 2020 as the Statewide Existing Affordable Multifamily framework is designed and implemented.

Implementation Milestones (2020-2022)

Implementation milestones will be further developed as the Program Administrators evaluate the current set of initiatives. The Program Administrators note that any continuing effects of the COVID-19 pandemic may modify implementation milestones.

2020

- Determine implementation structure and coordination among Program Administrators
- Develop a consistent framework for an incentive program that promotes comprehensive upgrades but allows flexibility for prescriptive upgrades
- Develop process to coordinate technical assistance with incentivebased program

	Work with housing agencies to develop an approach to directly incorporate program incentives into the capital stack for affordable multifamily buildings that are being refinanced
2021	 Launch consistent statewide framework for incentive-based program Identify additional areas to streamline administration of program Launch approach to working with housing agencies
2022	 Calibration of programs, where necessary, to improve impact and reach underserved or otherwise disadvantaged communities Ongoing stakeholder engagement and coordination with other programs (e.g.; HCR, HPD and housing agencies)

Budgets, Targets and Performance Metrics

The annual budgets, targets and performance metrics for this initiative are included in Appendices B and C.

4.2.2 Technical Assistance for Affordable Multifamily Buildings

Increasing the performance of existing affordable multifamily buildings at scale will require support beyond direct incentives for building owners, as technical and information gaps can limit the ability for housing agencies, financiers, and other housing intermediaries from supporting energy efficiency upgrades. Technical support, in the form of engineering studies and IPNAs, can help building owners maximize available program incentives to inform capital planning and achieve greater energy savings. Housing agencies often do not have in-house technical capacity or resources to drive increased energy performance of their portfolios, and access to performance data is key to advancing the underwriting of clean energy projects. This section highlights the various approaches to supporting the adoption of energy efficiency through the provision of technical support and resources to the affordable multifamily ecosystem.

Overview

Current Status	NYSERDA administers the Flexible Technical Assistance ("FlexTech")
	program which offers a cost share model for building owners to receive
	funding to conduct an energy study on their building. NYSERDA also offers
	energy studies and support to build capacity of housing agencies to
	perform IPNAs, as part of the MPP program. Utilities that offer multifamily
	programs do not have financial incentives for technical assistance.
Transitional	Program Administrators will develop a process for affordable multifamily
Phase	building owners to receive technical assistance and program incentives in a
	streamlined manner. Technical assistance is an offering that does not differ
	significantly across the State and allows NYSERDA, the entity with statewide

experience, to allocate funding to this initiative. As the Program Administrators adjust the current Statewide Existing Affordable Multifamily Program, the structure of this initiative will be designed accordingly. Con Edison, as part of its Rate Plan,⁵⁹ is required to offer technical assistance funding for affordable multifamily building owners. Con Edison will be working with the framework of FlexTech to implement its Rate Plan requirements.

The structure will consist of utilizing the existing framework for the provision of technical assistance by NYSERDA and their network of consultants to offer subsidized energy studies for affordable multifamily buildings across the State. In addition, the Program Administrators will support housing agencies to provide support and capacity development to help increase building performance requirements for regulated properties and to assess results from IPNAs. For utilities that administer the Statewide Existing Affordable Multifamily Program, they will be able to utilize the framework that is in place to market technical assistance to building owners. In addition, NYSERDA will work with housing agencies and financiers to identify gaps in available performance data and will invest in the development of data sets that can be used to aid in determinations on underwriting and build confidence among financiers and housing agencies.

Areas of design that will need to be developed through this transition will include:

- Ensuring buildings have one point of contact and do not have to hop between Program Administrators for information on offerings, specifically for utility administered affordable multifamily incentive programs.
- Exploring opportunities to partner technical assistance with program offerings; increase packaged incentives and % energy savings for performance incentive.

Full Implementation

Launch updated technical assistance offerings and determine where additional outreach and marketing efforts should be focused. In order to utilize technical assistance offerings to promote comprehensive upgrades of affordable multifamily buildings, the Program Administrators note the importance of coordination between NYSERDA and the utility-administered incentive programs. For the Full Implementation stage NYSERDA and the utilities will share information so that building owners are able to obtain technical assistance and incentives in a complementary manner. Multifamily building owners and their representatives will benefit from a streamlined approach to access technical assistance which will help them make decisions on upgrades to their buildings.

⁵⁹ Case No. 19-E-0065, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consol. Edison Co. of New York, Inc. for Electric Serv., et al.,* Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plan, (issued January 16, 2020). p. 77-78.

Target Market and Delivery Method

Market	Housing agencies, affordable multifamily building owners, service providers
Segment	
Addressed	
Delivery	Utilize framework of NYSERDA consultants; coordination with housing
Method	agencies to provide necessary support

Eligible Measures and Incentive Structure

Eligible Study	Energy efficiency technical analyses
Areas	Investigations of an advanced technology or system
	Creation of a long-term energy plan
	Investigation of deep energy savings
	Investigation of Clean Heating and Cooling Systems including Air Source
	Heat Pumps, Ground Source Heat Pumps, Variable Refrigerant Flow, and
	Solar Heating and Cooling
Incentive	Cost-share up to 100% of cost of technical assistance services
Structure	

Stakeholder / Market Engagement

Key Partners	Housing agencies (e.g., NYS Homes and Community Renewal, NYC
	Department of Housing Preservation and Development, Public Housing
	Authorities), service providers, and other housing intermediaries

Implementation Milestones (2020-2022)

Implementation milestones will be further developed as the Program Administrators evaluate the current set of initiatives. The Program Administrators note that any continuing effects of the COVID-19 pandemic may modify implementation milestones.

2020	 Develop process to coordinate technical assistance with incentive-based program Work with housing agencies and financiers to identify gaps in available performance data and will invest in the development of data sets that can be used to aid in determinations on underwriting and build confidence among financiers and housing agencies
2021	Launch technical assistance in a coordinated approach with the incentive-based program

	Identify additional opportunities to work with housing agencies and financiers to develop initiatives to aid in project development
2022	 Calibration of programs, where necessary, to improve impact and reach underserved or otherwise disadvantaged communities. Ongoing stakeholder engagement and coordination with other programs (e.g.; HCR, HPD and housing agencies)

Budgets, Targets and Performance Metrics

The annual budgets, targets and performance metrics for this initiative are included in Appendices B and C.

4.2.3 RetrofitNY⁶⁰

New York State's existing affordable multifamily buildings offer great potential for energy savings and greenhouse gas emissions reductions. Traditional energy efficiency programs targeted at multifamily buildings typically reduce on-site energy consumption by up to 30%. Greater building performance, on the order of 70% of on-site energy consumption reductions, can be achieved by undertaking a deep energy retrofit, which consists of superinsulating the shell, installing HVAC equipment, and lighting, among other upgrades. Despite the significant benefits of conducting deep energy retrofits on multifamily buildings, there are several barriers to scaling deep energy retrofits in the affordable multifamily building market segment. The deep energy retrofits currently being done are complex, not replicable, and are not cost effective.

Many affordable building owners face capital constraints that result in tradeoffs between basic structural and operational improvements against improvements to energy performance, making it difficult to undertake significant energy efficiency improvements. In addition, deep energy retrofits can be highly disruptive for tenants, making it difficult for building owners undertake such a project because most multifamily affordable housing units in the State are occupied. Retrofitting occupied buildings on a large scale requires innovative solutions that enable deep energy retrofits while the tenants remain in their apartments. However, cost effective solutions that can be implemented on a large scale currently do not exist in the United States.

Affordable multifamily housing is a logical starting point for the implementation of RetrofitNY because the regulated housing portfolio in New York State is large and provides for a natural aggregation of similarly constructed buildings, relative to market rate building stock, which tends to be more diverse. Approximately 660,000 affordable

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⁶⁰ RetrofitNY was approved as part of the Clean Energy Fund LMI Chapter, and with the transition to the LMI Portfolio, is now included in this Implementation Plan. Unlike the other initiatives addressing the affordable multifamily market segment, the RetrofitNY initiative will be implemented as planned, as such the current, transitional, and final implementation stages are not presented for this initiative.

housing units in the state are either publicly owned or subsidized by a regulatory or financing agencies, presenting a unique opportunity to create demand for retrofit solutions by aggregating a large number of units to be renovated. The fact that the affordable housing building stock tends to be more uniform, further enables the design of retrofit solutions that will be replicable. In addition, the development of retrofit solutions to achieve deep energy savings and associated finance models will provide the potential for affordable building owners to avoid the tradeoff between structural or operational improvements and energy upgrades by providing a mechanism for including the value of the energy savings in the capital refinance process, allowing building owners to finance a retrofit package through the energy savings.

In addition to building performance and the potential for innovative finance solutions, the solutions implemented will have positive impacts on building resiliency and tenant comfort and health. As a result, RetrofitNY will put the affordable housing sector at the forefront of the New York clean energy revolution and allow LMI communities to first benefit from more a more comfortable and healthier living environment.

Objectives:

- Develop simplified, scalable solutions for conducting deep energy retrofits in tenanted multifamily units
- Create a self-sustaining market for deep-energy retrofits in New York State to
 ensure the mass implementation of deep-energy retrofit solutions across building
 types and different housing market segments
- Ensure that affordable housing is prioritized when it comes to developing solutions for enabling the adoption of clean energy solutions
- Assist the architecture, engineering and construction industry in the development of innovative solutions to significantly improve the energy performance
- Assist with the development of financing mechanisms and new business models enabling building owners to purchase these solutions with little to no upfront costs.

Overview

Activities	To create a self-sustaining marketplace for the deep-energy retrofits of tenanted multifamily buildings in New York State, NYSERDA will: 1. Define the Criteria Needed for Retrofits • In cooperation with Affordable Housing and LMI stakeholders, NYSERDA will determine basic criteria to be met by retrofit packages to be created by the industry. • Criteria could include: very high level of building energy performance; enhanced health, comfort and building aesthetic; limited disruption to tenants during construction; cost effectiveness; guaranteed energy savings over a long period of time.

- 2. Create Demand by Aggregating a Large Number of Units to be Renovated
 - Through direct engagement of Public Housing Authorities and owners of large portfolios or affordable buildings, NYSERDA will create the demand side of the market by aggregating a large number of units, starting with the affordable housing sector where regulatory agencies can play a facilitating role, that will commit to implementing the solutions.
 - NYSERDA will work with HCR, HPD and the New York City Housing Development Corporation ("HDC") as well as other agencies, Public Housing Authorities, and private owners of large portfolio across the state to secure the appropriate demand.
- 3. Organize and Run the Design-Build Competition
 - The potential for a large, new market will motivate the industry to answer a competitive solicitation and engage in several rounds of a design-build and implementation competition focused on predetermined buildings from affordable housing portfolios in New York.
 - The best solutions will be selected and tested through implementation on the specified buildings. Initial demonstration projects will be implemented on building types that have a large number of similar buildings (in terms of size, age, construction materials, etc.) located in the State.
 - NYSERDA will carefully monitor implementation and results in terms of energy savings, construction costs, comfort, and disruption to tenants during construction.
 - Using lessons learned from the first round of installations, NYSERDA
 will organize subsequent rounds of the competition to improve the
 solutions until they meet all predefined criteria and adapt them to
 additional building types. The number of rounds of the competition
 will be based on the progress of the solution designs.
 - NYSERDA will fund part of the incremental implementation costs for the selected solutions: Part of the typical capital improvements currently funded or financed by Affordable Housing agencies for the preservation of multifamily buildings very often include energy related improvements such as facade and roof repairs, as well as boiler and window replacement. The funds dedicated to these improvements can be reallocated to cover part of costs of the solutions designed through the design-build competition. NYSERDA will also seek to utilize existing and new financing products to finance part of the incremental costs with the energy savings. NYSERDA will then fund the share of the incremental costs not covered by financing products available at the time of the retrofit. NYSERDA's financial contribution will decrease over time as the cost of the solutions is reduced and more financing products

become available, until NYSERDA financial support is no longer needed.

In parallel to the development of technical solutions, NYSERDA will help create an enabling environment for large scale implementation of the designed solutions through activities 4, 5 and 6.

- 4. Develop Supply Chain of High Efficiency Components
 - Building components and systems required for a deep energy retrofit are not always readily available in New York and are often imported from Europe. NYSERDA will work with manufacturers and distributors of the components and systems used in the implemented deep energy retrofit solutions to ensure their availability in the New York market.
- 5. Identify and Address Regulatory Barriers
 - NYSERDA will identify regulatory issues such as restrictive building codes and owner/tenant split incentive concerns.
 - In collaboration with the relevant state and city agencies as well as utility companies, NYSERDA will work to minimize or eliminate these barriers, and facilitate a streamlined installation of the designed retrofit solutions.
- 6. Develop Financial Solutions to Finance the Retrofits
 - In conjunction with the New York Green Bank, NYSERDA will
 convene a Financing Working Group and will work closely with
 stakeholders from the financing industry to develop private sector
 financing products that can be integrated with the existing
 affordable housing financing programs to provide project level
 support.
- 7. Leverage Philanthropic Funding and Other Grants
 - NYSERDA will engage philanthropic organizations and other potential partners to broaden application of this initiative to non-SBC customers, and allow for a faster implementation.

Target Market and Delivery Method

Market
Segment
Addressed

Affordable housing buildings owned by Public Housing Authorities, and privately owned multifamily affordable housing buildings regulated, financed or subsidized by affordable housing agencies or housing finance agencies such as HCR, HPD, the New York State Housing Finance Agency, and HDC. NYSERDA will subsequently expand its target market to privately owned unsubsidized multifamily affordable housing buildings.

Delivery Method

The administration of RetrofitNY includes:

- The development of high-level criteria that the architecture, engineering, and construction industry will need to meet to create the retrofit solutions.
- Creating the demand side of a new market for deep energy retrofits by aggregating a large number of units that will commit to implement the solutions to be designed.
- Organizing a design-build and implementation competition to select and test the best solutions through implementation. Using lessons learned from the first installation, NYSERDA will organize subsequent rounds of the competition to improve the solutions until they meet all predefined criteria and adapt them to additional building types. To ensure replicability, scale and impact, NYSERDA is analyzing New York's affordable housing portfolios to identify the most prevalent building typologies in the state.
- Identifying and addressing regulatory issues, facilitating the development of new private sector financing products, and developing the New York supply chain for high efficiency building components.
- Promoting broad adoption of these deep-retrofit solutions as preservation strategies for the affordable housing stock and encourage their adoption across the multifamily housing market.

Stakeholder / Market Engagement

Key Partners

- Public Housing Authorities
- NYS Affordable Housing regulatory agencies including HCR and HPD
- Housing Finance Agencies including New York State Housing Finance Agency, and HDC
- Private building owners
- Builders, developers, architects, suppliers, engineers, building scientists, and other service providers
- Private financing companies, insurance and re-insurance companies, and energy service companies
- Philanthropy

Implementation Milestones

Milestones 2021

- One or more solutions are built and tested through the design-build competition.
- Solution(s) are adapted to additional building typologies.

2022

• Integration of retrofit solutions in the public housing authorities' and affordable housing regulators' preservation strategies.

2025

- Retrofit solutions are cost effective and NYSERDA subsidies are no longer necessary.
- Building components and systems required for deep energy retrofits are readily available in the New York market.
- Financing solutions exists for building owners to purchase these solutions with minimal upfront cost.

Budgets, Targets and Performance Metrics

The annual budgets, targets and performance metrics for this initiative are included in Appendices B and C.

4.3 Affordable New Construction

High performance new construction can significantly reduce the energy consumption in the residential sector than would otherwise be expected, delivering energy bill savings for residents and building owners, improve the health and comfort of residents, and provide resilient and sustainable housing stock that deliver long term energy savings and carbon emission reductions. Despite the many benefits, only a small portion of residential new construction is achieving higher performance thresholds such as passive house or net zero. This can be attributed to several market factors including constraints with current building and design practices, potential for higher incremental costs, and limited availability of performance data and off the shelf design and build specifications. There is also a general lack of awareness of the long term financial, health, and environmental benefits associated with these buildings. The Program Administrators recognize current market constraints and will seek to scale the design and construction of new and substantial renovations in the affordable housing market by working with market partners and stakeholders within the new construction and affordable housing sector. This includes the network of housing agencies, builders and developers, architects, engineers, and financiers to address the market barriers associated with building to higher levels of energy efficiency. The Program Administrators will offer financial incentives to offset incremental costs, provide technical support, and support the development of scalable models for high performance affordable new construction and renovation.

Objectives:

• Improve the building performance through reduction of site energy use of affordable new construction, with goal of net zero or carbon neutral footprint

- Support trades and developers to advance engineering, design, construction practices, and performance verification
- Identify and test replicable models for achieving high performance in new affordable housing
- Advance integrated design solutions which are replicable, with a focus on cost optimization
- Support New York State and New York City housing agencies, funding authorities, and municipalities in their efforts to secure the most efficient, durable, resilient and healthy housing, based on technical and economic feasibility, while striving to maximize effective use of the resources available to achieve those goals
- Increase information about, awareness of, and demand for deep energy savings and zero net construction for new and gut rehab of single family and multifamily buildings.
- Support non-profit builders and first-time home buyers to encourage the construction and purchase of high-performance new homes

Overview

Current Status	NYSERDA administers the Affordable New Construction Program across the State, which provides: • Technical assistance to projects seeking to achieve high performance energy efficiency buildings • Incentives to housing developers and builders and Residential Energy Services Network ("RESNET")-accredited Rating Quality Assurance Providers, with incentive level based on the performance of the building • Quality Assurance (QA) services through third parties such as RESNET-accredited Rating Quality Assurance Providers, or qualified certifiers/verifiers to one of the Passive House standards
	In addition, NYSERDA administers the Buildings of Excellence competition, which seeks to identify replicable models for the design, construction, and renovation of affordable housing.
Transitional Phase	Throughout 2020, the affordable new construction activities funded through the CEF will continue and where possible, utilities will identify opportunities to work with local non-profit builders to support the construction of affordable housing and other support to new homeowners. In addition, the Program Administrators will explore the development of prescriptive packages of measures that can be incentivized to drive higher performance, i.e., more energy efficiency and reduced energy use, in new and renovated affordable housing. Where the Utilities and NYSERDA will be offering incentives, the Program Administrators will coordinate to streamline program participation, where necessary, and ensure the greatest impact of ratepayer funding.

	The Program Administrators will also explore opportunities to work with the affordable housing pipeline to streamline the availability of program incentives as part of the capital stack for projects that are being financed through housing agencies.								
Full	In 2021, the affordable new construction offerings will include:								
Implementation	Incentives for both high performance affordable new construction								
	and prescriptive packages of measures to increase the performance								
	of renovation and new construction projects;								
	Market development support that includes integrated design and								
	construction protocols, and the development of data and								
	information resources to document success stories and lessons								
	learned that can be used to provide cost/benefit justification;								
	Demonstration and competition initiatives, such as the Buildings of								
	Excellence competition, to identify models for achieving high								
	performance affordable new construction; and								
	 Support for non-profit builders and first time-home buyers. 								

Target Market and Delivery Method

Market Segment Addressed	Builders, developers, owners, architects, engineers, energy modelers and other construction entities for new buildings or substantial renovation of affordable single family or multifamily buildings.
Delivery Method	Incentives will be provided to builders and developers; however, the Program Administrators will also seek opportunities to integrate incentives into the financing of affordable new construction, by working with housing agencies. Technical assistance will be provided to housing agencies, architects and engineers, builders and developers.

Eligible Measures and Incentive Structure

Eligible	The Affordable New Construction initiative assesses the performance of the
Measures	building. Envelope, HVAC, appliances, and efficient lighting measures are all
	eligible for inclusion in incentivized projects.
Incentive	Incentives will be provided to affordable new construction and renovation
Structure	projects based on the level of energy savings achieved, as outlined in the
	program documents. For the non-profit builder path, projects will be
	eligible for prescriptive measure level incentives from their utility.

Stakeholder / Market Engagement

Key Partners	State and local housing agencies, community development corporations
	("CDCs"), developers, builders, architects, engineers, housing intermediaries,
	non-profit builders, Home Energy Rating System ("HERS") raters.

Implementation Milestones (2020-2022)

Implementation milestones will be further developed as the Program Administrators evaluate the current set of initiatives. The Program Administrators note that any continuing effects of the COVID-19 pandemic may modify implementation milestones.

2020	 Existing programs will continue Design of coordinated offerings between NYSERDA and utilities
2021	 Launch of coordinated program offerings Launch of high-performance demonstration and competitions
2022	 Launch of high-performance demonstrations and competitions Incorporation of lessons learned from previous demonstrations and competitions

Budgets, Targets and Performance Metrics

The annual budgets, targets and performance metrics for this initiative are included in Appendices B and C.

4.4 Pilots and Demonstrations

Opportunities for increasing access to energy efficiency solutions and improving energy affordability are ever-evolving, with new technologies, applications, business and delivery models, and opportunities for cross-sector coordination emerging on a regular basis. To continuously improve the programs and offerings under the LMI Portfolio, the Program Administrators will incorporate the piloting and demonstration of new technologies and approaches for serving LMI customers and communities. Through pilot activities, the Program administrators will seek to:

- Identify and test technologies and/or approaches for addressing the barriers to improving energy efficiency in the LMI market segment;
- Test approaches that can scale the adoption of energy efficiency solutions in the LMI market segment;
- Prove models for improving the delivery of energy efficiency solutions across the LMI market segment that can reduce administrative burden for customers and administrators; and
- Determine innovative approaches for improving awareness and access to energy efficiency solutions for LMI or otherwise disadvantaged communities.

The Program Administrators will fund LMI pilots and demonstrations through the CEF, with the expectation that learnings will be communicated and deployed at a larger scale. For instance, a novel approach for delivering energy efficiency services to customers may require testing before being broadly adopted. Through the CEF, this approach for service delivery can be tested and if successful, be rolled out for deployment through the utilities. To identify pilot opportunities, the Program Administrators will leverage existing vehicles for discovering possible pilot concepts, such as REV Connect or through the issuance of solicitations seeking innovative solutions. Decisions on pilot priorities and the sharing of information between Program Administrators will occur within the LMI Management Committee. In order to providing timely summary information on new pilots while minimizing administrative burden, the Program Administrators are designing a template that they will populate and file to DPS for each new pilot. This summary template will include, but not be limited to, a description of the pilot, timeline, milestones, and metrics. DPS will establish a new case number for tracking these pilot filings. In addition, the Program Administrators will report annually on pilot activities, including results and planning.

Budgets, Targets and Performance Metrics

The annual budgets, targets and performance metrics for this initiative are included in Appendices B and C.

4.5 Beneficial Electrification in Low- and Moderate-Income Homes

As part of the CLCPA, New York committed to achieving a carbon neutral economy by 2050, and to a goal of 40%, but not less than 35%, of the benefits from the climate friendly, energy transition investments accruing to disadvantaged communities. Given that approximately 30% of the State's greenhouse gas emissions currently are from heating and cooling of buildings, the goal of carbon neutrality requires a major investment and shift in focus to homes that are heated through energy efficient and electrically powered technologies. Heat pumps represent the most efficient commercially available solution for space heating, water heaters, and other equipment. Such a transition is referred to as *beneficial electrification*, meaning transitioning to electric will reduce emissions of greenhouse gases and other pollutants.

However, with the implementation of this novel technology, there remain economic and institutional barriers that pose a challenge to the deployment of heat pumps for LMI

⁶¹ Chapter 106 of the Laws of 2019. CLCPA is available at https://legislation.nysenate.gov/pdf/bills/2019/S6599. pp. 2-3, 16.

⁶² https://www.raponline.org/wp-content/uploads/2018/06/6-19-2018-RAP-BE-Principles2.pdf.

households. For example, in affordable housing where there are caps on rents and utilities, there are concerns about shifting costs from heating fuel (most often not paid by tenants) to electricity costs (typically paid by tenants). It also offers the potential for health benefits to occupants through reductions in on-site combustion and carbon monoxide. As such, investments in beneficial electrification in the LMI market segment as part of this LMI Portfolio will seek to improve energy affordability and health outcomes, while maintaining consumer protection and increasing access to heat pump solutions for LMI communities, households, and building owners.

As articulated in the NYS Clean Heat filing in 2020,⁶³ NYSERDA has allocated \$30 million⁶⁴ of its \$250 million Clean Heating and Cooling Investment Plan for 2020-2025, for market interventions to provide clean heating and cooling solutions to the statewide LMI market segment, in four areas:

• Research and analysis:

Conduct market studies to inform NYSERDA and other market actors about market, policy and institutional barriers, best practices across various building types, and strategies to maintain affordability while improving energy efficiency, all of which will inform pilot and demonstration efforts.

• Pilots and demonstrations:

Identify and fund potentially replicable and scalable models for LMI heat pump adoption that reduce known market and institutional barriers in critical LMI segments and provide data and examples that boost investor confidence.

• Short-term incentives:

Provide short-term statewide standard offer incentives that are combinable with other utility and government incentives to promote incorporation of heat pumps into low-income weatherization and affordable housing energy efficiency projects.

Consumer education:

Develop educational materials to help homeowners, building owners and property managers operate and maintain heat pump systems, to increase the impact and benefit of the heat pump installation.

Program Administrators will coordinate on these efforts to advance beneficial electrification in the LMI market segment, while addressing energy affordability and

⁶³ See, NE: NY Proceeding, NYS Clean Heat: Statewide Heat Pump Program Implementation Plan (filed March 16, 2020 and updated May 29, 2020), Appendix A.

⁶⁴ In addition to the \$30 million investment in beneficial electrification represented here, NYSERDA is investing an additional \$1 million as part of this work under the CEF.

energy reliability. This effort will inform long term investments in beneficial electrification for LMI homeowners and tenants in affordable housing.

Implementation Milestones (2020-2022)

Implementation milestones will be further developed as the Program Administrators evaluate the current set of initiatives. The Program Administrators note that any continuing effects of the COVID-19 pandemic may modify implementation milestones.

2020	 Research and analysis on institutional barriers, consumer protections, and application of heat pump solutions to ensure greater impact for LMI customers, tenants, and affordable multifamily building owners Design of short-term incentives
2021	 Continued research and analysis Launch of short-term incentives to offset costs of heat pump installations in LMI homes or affordable multifamily buildings Launch of pilots and demonstrations Assess lessons learned from research, analysis, pilots, and incentive offerings
2022	 Continued pilots and demonstrations Continued incentive offerings Planning for long-term investment in electrification for the LMI market segment, based on research and analysis and learnings from the pilots, demonstrations, and incentive offerings

4.6 Additional LMI Initiatives

In addition to the LMI Portfolio initiatives, NYSERDA administers other initiatives to increase access to clean energy solutions and improve energy affordability for LMI residents and communities as part of the Clean Energy Fund Market Development Portfolio ("CEF Market Development Portfolio"). The New York State Healthy Homes Value-Based Payment Pilot and the Solar for All were initially filed as part of the LMI Chapter of the CEF, and with the transition of the LMI elements of the CEF to this Implementation Plan, will be presented here.

4.6.1 The New York State Healthy Homes Value-Based Payment Pilot

The New York State Healthy Homes Value-Based Payment Pilot ("Healthy Homes Pilot") seeks to develop a replicable model for implementing a healthy homes⁶⁵ approach to

⁶⁵ A residential healthy homes intervention combines energy efficiency and weatherization measures (e.g., insulation and air sealing) with measures that address persistent respiratory health conditions such as

residential building improvements under the Medicaid Value-Based Payment ("VBP") framework. By validating impacts such as healthcare cost savings and benefits to residents, as well as providing market development support, including specification of services and VBP contracting, the Healthy Homes Pilot will facilitate the adoption of healthy homes treatments by Medicaid managed care organizations ("MCO") as part of their Medicaid VBP Arrangements that incorporate social determinants of health. Adopting this approach addresses avoidable medical costs associated with asthma and household injury, while also encouraging third party capital investment in residential energy efficiency through MCO adoption of healthy homes interventions within the value-based payment social determinants of health framework after the completion of the Pilot.

Approved in 2019, the Pilot will take place during 2020-2023, with NYSERDA and NYS DOH collaborating to implement healthy homes interventions in 500 Medicaid member homes and evaluate the reduction in Medicaid cost savings and health impacts for residents. Responsibilities for each agency include:

NYSERDA

- o Fund Pilot activities, advise intervention planning related to energy and housing measures, facilitate and manage energy/housing services included in the Pilot, and assume responsibility for data collection and evaluation activities related to energy measures/outcomes.
- Provide market support intended to prepare the existing network of energy efficiency contractors to implement healthy homes interventions as well as provide guidance for the value-based payment social determinants of health contracting process.

asthma (e.g., ventilation, moisture/mold mitigation, carpet removal), and includes additional measures aimed at home injury prevention (smoke and carbon monoxide alarms, stair repair, electrical outlet covers). When implemented together, these interventions can improve occupant health, reduce energy bills and healthcare costs, and improve the comfort and safety of a home.

⁶⁶ New York State Medicaid is transitioning the managed care healthcare delivery system from a fee-for-service to a VBP model that links healthcare provider performance and reimbursement through a predetermined set of value metrics. Under the VBP model, managed care organizations ("MCO") (i.e., healthcare plans such as Empire Blue Cross Blue Shield) can enter into arrangements with healthcare providers or provider networks To support local reinvestment, two of three VBP arrangement levels require incorporation of a community-based organization ("CBO") engaging in work focused on the social determinants of health ("SDH"). Among the five social determinants of health categories established within the VBP system, the Neighborhoods and Environment category includes "substandard housing" as a determinant and includes funded interventions and standard metrics associated with healthy homes interventions within the established SDH Intervention Menu. The substandard housing determinant places energy efficiency and weatherization measures, when incorporated within a healthy homes intervention, within the DOH value-based payment model.

- NY State Department of Health ("DOH")
 - Office of Health Insurance Programs will secure MCO participation in the Pilot and oversee all VBP contracting activities.
 - Office of Public Health will advise Pilot intervention planning related to asthma trigger reduction measures and asthma care management services, facilitate and manage direct health services included in the Pilot, and assume responsibility for data collection and evaluation activities related to health measures/outcomes. o
 - Center for Environmental Health will advise Pilot intervention planning related to home injury prevention measures.

NYSERDA and the DOH are targeting to launch the Pilot in late 2020, however this schedule may need to be amended due to the complex nature of the pilot and the potential impact of the 2020 COVID-19 pandemic. The budget and impacts for the NYS Healthy Homes VBP Pilot can be found in Appendix C.

4.6.2 Solar for All

LMI households and renters face unique barriers in accessing the benefits of solar photovoltaic ("PV"), given the relative costs and requisite conditions for individual building rooftop solar facilities; as such, community solar projects offer the greatest potential for providing access to the benefits of solar to LMI households. Through Solar for All, NYSERDA will allow low-income customers access to the community solar market by:

- Developing a community solar subscription model specifically for low-income
 customers, with subscriptions offered to income-eligible customers at no cost.
 NYSERDA will permit project sponsors to propose alternative models where lowincome participants pay a portion of their savings to the sponsor to receive other
 benefits.
- Issuing solicitations for community solar projects to commit project capacity to subscriptions for low-income customers. NYSERDA will allocate the committed capacity to low-income customers using the program's subscription model and manage customer enrollment and subscription allocation on an ongoing basis.
- Working with low-income energy efficiency programs, utilities, community
 agencies, solar project developers, investors and other market actors to market
 the program to low-income customers and develop a strategy for a post-initiative
 transition. Effective in 2020, a Solar for All subscription has been added as an
 eligible measure on the EmPower NY application, to help streamline access to
 energy efficiency and solar benefits for low-income households.

NYSERDA seeks to enroll up to 10,000 low-income households for no-cost community solar subscriptions before 2021. The Solar for All initiative was launched under the CEF Market Development Portfolio in 2018 and is funded under the CEF Market Development Portfolio through 2020. Going forward, the Solar for All initiative and other initiatives to increase access to solar for LMI households, affordable housing, and disadvantaged communities will be funded as part of the Solar Equity Framework of NY Sun, as outlined in the NY Sun 2020-2025 Operating Plan⁶⁷, filed with the DPS on June 1, 2020. The budgets and impacts of the CEF Market Development funded component of Solar for All are included in Appendix C.

5. Customer Awareness, Outreach & Engagement

Awareness and education initiatives will play a crucial role in creating lasting effects from energy efficiency and energy affordability programs among LMI customers. Historically, LMI customers have been understood to be hard to reach for a number of reasons, including but not limited to: cultural diversity; owners unwilling to participate in programs; lack of awareness of and importance attributed to energy efficiency and clean energy technologies; lack of access to capital to invest in projects; and the challenges in managing day to day expenses with limited resources. The success of the Statewide LMI Portfolio depends on a successful customer awareness, outreach and engagement campaign. To address this, strategies are being designed to overcome the challenges of engaging LMI customers and affordable property owners.

Objectives

Customer Awareness, Outreach & Engagement initiatives will seek to identify, address and include solutions to overcoming barriers of engaging LMI customers and other stakeholders, which may have impeded customer participation, of current and future initiatives.

• Raise Customer Awareness About Portfolio Offerings

In order for the Portfolio to be successful, LMI customers need to be made aware of the initiatives and services. The outreach campaign will recognize the diversity of LMI New Yorkers and ensure it is inclusive. To achieve this, community partners will be engaged to help assist in raising customer awareness of the benefits of participation. Income eligibility and other qualifications need to be clear.

⁶⁷ http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7B4F3CB5E3-BA5A-4182-AA44-94C3C24C2441%7D.

Motivate Customers to Take Action

Once customers are made aware of initiatives and services for which they may qualify, the next step is to engage customers in taking action. Messaging will be designed to ensure customers understand the participation process and benefits of taking action.

• Provide Easy Access to Participation

The initiatives will need to be designed so that it is easy for customers to apply and participate. Contractors will need to be assigned quickly after a customer submits an application for one or more initiatives to ensure customer satisfaction.

Delivery of Customer Awareness, Outreach and Engagement Initiatives

Through multiple delivery channels, the Program Administrators will deliver initiatives that will address the overall strategic development and coordination of Customer Awareness, Outreach and Engagement initiatives. These initiatives will build on existing program experience and provide a comprehensive and integrated statewide approach that Program Administrators plan to include, but not be limited to, the following key initiatives:

- Statewide branding;
- Centralized NY Energy Advisor website, as described in Section 5.2 below, providing online information on energy efficiency and clean energy, and to learn about and participate in the Portfolio offerings;
- Branded hard-copy program outreach and informational materials to complement the online NY Energy Advisor website;
- An enhanced network of statewide, community-based partners to leverage the customer outreach and engagement capabilities of LMI stakeholder organizations, as well as contractors;
- Delivery of community-based partnerships that combine distribution of low-cost EE measures with education about energy efficiency and clean energy and information on how to participate in other Portfolio programs;
- Delivery of community-based marketing and paid advertising.

This comprehensive approach will allow the Program Administrators to reach residents and communities with opportunities for improving energy affordability, access to clean energy solutions, improve awareness and education of clean energy opportunities,

connect with essential services, 68 and otherwise access the full range of benefits of the clean energy economy.

The following sections provide further information on the featured elements listed above, including key milestones for implementation.

5.1 Statewide Brand

An effective, statewide brand for the Portfolio will be developed by the Program Administrators to provide a consistent foundation for all marketing and engagement activities. Just as the evolution of appropriately harmonized statewide program design elements can increase effectiveness in program delivery by reducing confusion, an effective statewide brand can provide more consistent messaging, and increase awareness of the LMI Portfolio. Brand identification, leading customers and affordable housing owners to initiatives and services, will contribute to the success of the Portfolio. The statewide brand will be used in conjunction with localized marketing implemented by the Utilities in their respective territories.

Key considerations are being given as the Program Administrators work toward developing an effective statewide brand. Those considerations include developing a clear, concise message as to what is being offered, where to find the offerings, who is offering them, who qualifies for the offerings, and the value of participation. The statewide brand, over time, will serve as a beacon, leading LMI customers and affordable property owners to energy efficiency solutions.

Key Milestones

Since development of a statewide brand for the Statewide LMI Portfolio is an important, foundational task, the Program Administrators' expect to complete development by the first quarter of 2021.

5.2 NY Energy Advisor: for Income Eligible Energy Efficiency Programs

The Program Administrators will develop a web-based customer hub platform named NY Energy Advisor: for Income Eligible Energy Efficiency Programs ("NY Energy Advisor") to provide streamlined, easy access to LMI initiatives and services for LMI customers, affordable multifamily property owners and managers, contractors and stakeholders

⁶⁸ These are services outside of the LMI initiative that facilitate participation in the initiative, which may be referred to as "wraparound." For example, a customer may need a new roof in order to qualify for attic insulation under the EmPower NY initiative and receives the new roof from a community program that funds such repairs.

throughout the state. The NY Energy Advisor will provide clear, consistent and easy to find information on all relevant LMI programs and services, including, but not limited to, energy efficiency, renewable energy, and energy education materials. This is expected to reduce customer, contractor and stakeholder confusion and the need to search for assistance on multiple websites. It is expected that the NY Energy Advisor website will develop, over time, into an effective and trusted source for those who use it.

When fully implemented, the NY Energy Advisor website is expected to provide:

- Information on the Portfolio offerings;
- Information on the benefits of participating;
- Links to program intake forms;
- Information on how to become a participating contractor or builder and links to participation applications;
- Information for stakeholder and community organizations on how to get involved with promoting the programs;
- Contact information on how to access community outreach representatives (see Section 5.4, below); and
- Links to other programs and resources, as appropriate for the audience.

The costs for marketing, advertising, consumer perception/awareness surveys, and maintenance of the NY Energy Advisor will be shared by the Program Administrators. The co-funding agreement to pay for these costs will be based on the approved cost sharing method used by the Technical Resource Manual ("TRM") Committee. ⁶⁹ As NYSERDA is not included in the TRM cost sharing agreement, NYSERDA's share will be based on its percent of the Implementation Plan budget. The Utilities' cost share will be the remaining amount prorated among the Utilities as outlined in the TRM Management Plan.

An agreement is being developed for the Program Administrators delineating the process for reviewing details related to the marketing and maintenance of the NY Energy Advisor. NYSERDA will continue to take the lead with marketing and maintenance, engaging a contractor to provide the necessary work. The agreement will set forth cost sharing

⁶⁹ See, Technical Resource Manual Management Plan filed August 15, 2018 in Cases 14-M-0101, 15-M-0252 and Matter 15-01319. Cost share percentages were informed by EM&V work previously completed under the directives and guidance provided in Case 07-M-0548, *Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard* ("EEPS"). The cost share percentages outlined in this document are derived from contract negotiations amongst the TRM MC member companies, which occurred as part of bringing on-board the TRM Administrative Vendor.

responsibilities, a process to review details of the campaign, costs associated and how and when re-imbursements to NYSERDA will be made.

Key Milestones

During Q3 of 2020, the Program Administrators expect to launch an initial version of the NY Energy Advisor website, introducing customers and affordable housing property owners to the current initiative offerings. Following the initial website launch, the full NY Energy Advisor website will be launched by end of Q2 2021.

After the full website launch, there will be an opportunity to consider including and providing access to other LMI energy assistance programs such as the WAP and HEAP.

5.2.2 Hard Copy Customer Education Collateral and Multilingual Communications
While the online NY Energy Advisor will be a critical resource for providing information to
LMI customers, approximately 11% of all New Yorkers⁷⁰ do not have access to a
computer or mobile device in their home. To address this fact, the Program
Administrators will complement the NY Energy Advisor website with written materials
that provide similar branded messaging about Portfolio offerings. These materials will be
distributed for use by contractors and community-based partners to hand out to their
clients. The focus of these materials will be to provide initiative information and
encouragement for customers to take action by calling their utility or NYSERDA's
customer service center or a community-based partner organization to receive assistance
in applying for participation.

Key Milestones

Hard copy customer collateral will be developed in parallel with the online NY Energy Advisor, in order to ensure consistent messaging and calls to action and to streamline development costs.

5.3 Community-Based Outreach Education and Engagement Partnerships

Access to clean energy programs and resources, and the broader set of benefits they bring, can be more difficult for LMI households and disadvantaged communities, due to the various economic and institutional barriers present in the LMI customer segment. To increase adoption of energy efficiency and realize the benefits of clean energy, it will be important to work with CBOs, who are trusted resources in the community, to connect residents with program opportunities, increase awareness and education of clean energy issues, educate residents on ways to reduce energy consumption and bills, workforce

⁷⁰ American Community Survey data – 2018; https://www.census.gov/programs-surveys/acs.

development opportunities, and services necessary to undertake energy efficiency projects.

5.3.1 Expansion of Existing LMI Community Partnerships

The Program Administrators will build on the Clean Energy Engagement Program ("CEEP")⁷¹ administered by NYSERDA to further develop community-based resources to educate and motivate eligible customers to participate in a more inclusive clean energy economy. Key community-based partners are expected to include, but not be limited to:

- CBOs;
- Local governments and agency programs;
- Ecumenical organizations and communities;
- Philanthropic organizations;
- Low-income and affordable housing advocacy groups;
- Community organizations and associations;
- Homeowner and tenant associations;
- Educational institutions;
- Corporations and trusts;
- Banks and financial institutions, particularly community development financial institutions ("CDFIs");
- Environmental and energy efficiency advocacy groups (national, statewide, and local);
- Skilled trade groups, unions, and engineering societies;
- Retailers and installation contractors; and
- Community event organizers (fairs, home shows, etc.).

Community-based partners will also help support the design and delivery of initiatives under the Statewide LMI Portfolio by helping to identify the needs of communities and working with the Program Administrators to incorporate community input into initiative planning.

Key Milestones

Starting in 2021, the Program Administrators will design the community-based outreach and engagement initiative, with full implementation launch in Q2 2021 to provide timely transition from the current CEEP Program. NYSERDA has been engaged with community partners in a co-design process to identify opportunities for improving the reach and impact of an outreach and engagement initiative within disadvantaged communities.

 $^{^{71}}$ The CEEP initiative currently deploys 10 community-energy advisors across New York State with the goal of connecting residents to available programs and is funded through Q1 of 2021.

This co-design process began in early 2020 and will inform the design of the subsequent community engagement initiative.

5.3.2 Low-Income Forum on Energy ("LIFE")

The LIFE initiative is jointly administered by NYSERDA and DPS, with a Steering Committee comprised of utilities, State agencies, and non-profit, community-based and human services organizations. LIFE will provide a forum to facilitate customer, contractor and stakeholder education and access to clean energy for LMI customers and communities, provide updates to programs, collect feedback from the community, and share best practices and innovative solutions to serving LMI customers.

The LIFE initiative offers opportunities for information exchange, hands on workshops and collaboration among individuals and organizations that serve LMI customers. Monthly webinars and newsletters provide stakeholders with an opportunity for continuous engagement; regional meetings and statewide conferences provide stakeholders with the opportunity to engage in hands-on workshops, information sharing and networking.

5.3.3 Neighborhood-Based Delivery Model

Several of the Program Administrators have tested a neighborhood-based delivery model to improve energy affordability and increase access to clean energy solutions, energy education and energy management tools for LMI customers. This was accomplished by providing no-cost services to all residential members of a defined geographic region and providing outreach and engagement through a fair-like event designed to bring together neighbors in a community to learn how to take action to become energy efficient and enroll in available programs. The pilot aimed to determine if this model reduces administrative costs associated with program implementation and income verification. This pilot is being evaluated to determine if this is an effective model for delivering LMI and energy efficiency services to customers.

Upon a positive evaluation, the Program Administrators will aim to expand the reach of this pilot throughout the State and use the neighborhood-based delivery model as a mechanism to reach LMI customers in their communities, reduce administrative costs, create a holistic one-stop shop for customers and increase LMI customer access to LMI and energy efficiency programs.

The expected outcome is that this model will allow programs to reach, engage, enroll and serve more LMI customers more cost-effectively, increase trust in the programs and in

Program Administrators by reaching customers through trusted community leaders and connect customers with other LMI social services.

Key Milestones

During the balance of 2020, the Program Administrators will assess evaluation results from the existing pilots and determine effectiveness of the neighborhood-based delivery model. If warranted, the Program Administrators will develop a replicable event/implementation plan, including consideration of remote webinar-based platforms as an alternative delivery mechanism to minimize risks associated with large, in-person events. The target for rolling out would be Q3 2021

5.4 Community-Based Customer Engagement Initiatives

Utilities will seek partnerships with organizations who directly or in-directly serve or advocate on behalf of the LMI community. Utilities will engage eligible LMI customers through customized energy educational efforts and the distribution of free or discounted direct install measures through trusted local organizations. These engagement initiatives provide customers easy access to energy efficiency information, promote proven technology (e.g., installation of light emitting diode ("LED") lighting measures), and increase awareness of other efficiency programs offered in the Portfolio, including direct install measures, behavioral action recommendations, and general efficiency education. These types of community-based engagement initiatives can deliver multiple benefits:

- Increase LMI customer awareness of the financial, comfort, health & safety and environmental benefits of energy efficiency and clean energy;
- Promote participation in deeper LMI efficiency programs;
- Capture direct savings from the installation of no- or low-cost energy efficiency measures (e.g., LED bulbs, showerheads, faucet aerators, advanced power strips) to LMI customers through trusted community partners;
- Provide behavioral recommendations to improve LMI customer home comfort and efficiency;
- Build customer trust in and appreciation of participating organizations and sponsoring utilities, leading to greater willingness to participate in other LMI programs; and
- Build relationships with participating community-based partners, leading to their participation in promoting other LMI Portfolio programs.

As part of the Joint LMI Management Committee, the Program Administrators will share experiences and lessons learned from offering these initiatives with each other. Currently, these programs are offered by some utilities but not all utilities. If an offering

proves to be successful, another utility may want to offer a similar initiative. Further, successful initiatives may be considered to be offered statewide.

Utility sponsors of such programs will partner with organizations providing LMI customers with the opportunity to opt in to receive free or heavily discounted efficiency measures, and/or customized behavioral recommendations to reduce their energy consumption.⁷² Types of initiatives under consideration include:

- Working with local food banks to distribute LED's to low-income customers;
- Distributing energy efficiency kits to customers participating in a Utility low-income bill discount programs;
- Working with measure vendors, local community- based organizations and public agencies to provide free or heavily discounted energy efficiency measures to LMI customers; and
- Distributing home energy reports ("HERs") to LMI customers with customized energy efficiency recommendations.

Key Milestones

During Q4 2020, sponsoring utilities will finalize measure selections, customer opt-in process, measure distribution process, and energy education material, and initiate outreach to local partners, based on the types of program(s) they are running, to recruit participation in distribution of measures or in promoting the programs to their constituencies. Examples of key partners include food banks, school districts, non-profits, local community organizations and local public agencies. Delivery of these initiatives will commence in 2021 based on schedules coordinated with each partner.

5.5. Community Based Marketing and Paid Advertising

To complement the NY Energy Advisor and the community-based outreach and education elements described above, the Program Administrators may conduct multilingual marketing through local media, with an emphasis on marketing delivered through local news outlets and community officials and opinion leaders. The Program Administrators anticipate high levels of interest in programs designed to help LMI communities, which have been adversely impacted economically by the current economy, with increased focus on home environments, given the length of time people stay at home to avoid COVID-19. Efforts to reach out to media to promote the programs

 $^{^{72}}$ Sponsoring utilities will avoid distribution of unsolicited measures, which can lead to low installation rates and customer complaints.

will be leveraged by the Program Administrators' community-based partners, many of whom have relationships with local media.

To the extent that the above elements are not able to drive full attainment of Portfolio goals, additional marketing may include paid advertising to raise awareness about the LMI programs. Examples of paid advertising that may be considered are:

- Public transportation posters and billboards;
- Google searches;
- Social media;
- Local electronic and print media; and
- Direct mail/email campaigns targeted at LMI customers who have been identified
 as categorically eligible based on geographic eligibility guidelines, or who are
 identified in utility customer databases as being eligible for HEAP or low-income
 rate discounts.

Key Milestones

Specific media and paid advertising approaches will be developed and coordinated with the statewide campaign and as initiatives are added/changed in the Portfolio.

6. Coordination with External Program Administrators

In addition to the coordination across the Program Administrators, there are additional opportunities to work with programs administered by New York State agencies, local government and CBOs to reduce redundancy and to increase coordination, effectiveness and impact for the customer.

Table 7: Summary of Statewide Coordination Efforts

Organizations	Nature of Coordination
New York State Department of Environmental Conservation	 Explore opportunities to improve energy and health outcomes in environmental justice and disadvantaged communities. Support operationalization of CLCPA investment requirements
DOH	 Develop an approach to quantify the health outcomes and healthcare cost reductions associated with energy efficiency improvements. Explore opportunities for developing a programmatic approach for addressing energy efficiency and healthy homes improvements for low-income customers.

HCR	 Support the development of technical capacity development and access to performance data (e.g., benchmarking) Explore systematic improvements to policies and processes so that the benefits of clean energy are embedded upstream of tenants and building owners, such as: Exploring opportunities to increase energy performance requirements associated with the Low-Income Housing Tax Credit and the Qualified Allocation Plan; Advancing adoption of an Integrated Physical Needs Assessment, in coordination with other key stakeholders including housing authorities; Exploring the development of underwriting criteria for high performance new construction and preservation projects, based on reduced operational costs; and Piloting model-based utility allowances in New York, in coordination with other key stakeholders. Alignment between WAP and EmPower NY to reduce overlap and administrative burden for the agencies, service providers, and customers.
NYS Office of Temporary and Disability Assistance	Maximize the reach of HEAP funds through increased consumer education and targeted efficiency services.
Low-Income Energy Program Interagency Task Force ⁷³	Development of a cohesive approach to serve low- income energy customers across the programs administered by New York State agencies to reduce redundancy and increase coordination, effectiveness and impact for the customer.

The Joint LMI Management Committee will examine and address the coordination of work with external program administrators to see that the LMI Statewide Portfolio effectively delivers clean energy solutions to LMI customers and communities.

7. Preliminary Benefit Cost Analysis

This section presents the results of the preliminary Benefit Cost Analysis ("BCA") for the LMI Portfolio of initiatives. The Program Administrators calculated the BCA following the

⁷³ The Low-Income Energy Program Task Force was formed by the Office of the Governor in May 2016 to bring together the New York State agencies responsible for administering low-income energy programs for developing a cohesive strategy for serving LMI energy customers, increasing coordination and sharing information.

NYS BCA Framework⁷⁴ and subsequent DPS guidance.⁷⁵ A common approach was used to calculate the LMI Portfolio BCA found in Table 8 and Program Administrator specific assumptions were used according to utility BCA handbooks.

The preliminary BCA results reflected in Table 8 shall be considered preliminary and will be refined as the initiatives are further developed. The assumptions that were used for the preliminary Portfolio BCA are based on the Current Status of initiatives and are not reflective of the changes to programs that will be made through the Transitional Phase. In addition, the Program Administrators note that there are many additional benefits not included in the calculation of the BCA that offer non-energy benefits to LMI customers.

Portfolio-level BCA results are shown in Table 8.

Table 8. Statewide Portfolio BCA Results

	Societ	al Cost Test ("S	CT")	Utility Cost Test ("UCT")			
						Benefit	
	Benefits	Costs	Cost Ratio	Benefits	Costs	Cost Ratio	
2020	\$129,229,072	\$253,706,981	0.51	\$116,896,160	\$100,053,530	1.17	
2021	\$218,836,129	\$353,024,876	0.62	\$125,297,059	\$142,716,629	0.88	
2022	\$174,400,223	\$269,994,841	0.65	\$98,703,989	\$125,695,801	0.79	
2023	\$175,184,654	\$264,605,371	0.66	\$99,824,829	\$127,760,629	0.78	
2024	\$180,872,766	\$269,853,760	0.67	\$102,834,358	\$135,749,299	0.76	
2025	\$184,070,443	\$261,710,063	0.70	\$105,064,549	\$139,312,628	0.75	

⁷⁴ Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, Order Establishing the Benefit Cost Analysis Framework, (issued January 21, 2016).

⁷⁵ Clean Energy Guidance CE-07: *Utility-Administered Energy Efficiency BCA Filing Requirement Guidance* (issued May 14, 2018).

8. Evaluation, Measurement, & Verification Approach

As described below, the Program Administrators will take a coordinated approach to estimating savings and evaluating LMI initiatives. This will include standardized statewide savings estimation approaches, collaborative evaluation activities, and continuous monitoring of and feedback on Performance Metrics. Specific program-level savings estimation approaches and evaluation schedules will be detailed in the forthcoming Verified Gross Savings ("VGS") Specifications. These VGS Specifications will be coordinated across the Program Administrators and jointly filed.

8.1 Savings Estimation

In general, the Program Administrators will rely on the TRM and best practices to estimate savings and achieve VGS goals. Given that LMI customers often have older and less efficient equipment than their market rate peers, and the need to fully account for LMI customers savings, an existing baseline approach will be employed where possible. To minimize administrative challenges that could result from using different baseline assumptions for different customer segments, particularly within a program that concurrently serves both LMI and non-LMI customers, the following overarching savings estimation approaches will be used:

Prescriptive

For prescriptive measures, baseline studies or other evaluation material will be leveraged to calculate an average existing condition baseline that approximates the type and age of equipment currently installed by LMI customers. This will allow for a uniform deemed savings approach for common prescriptive measures within the LMI Portfolio, either at a statewide or more granular level depending on availability of data and measure-specific characteristics. Using evaluation and other research data to determine these average baseline values will promote evaluation coordination amongst Program Administrators (as discussed in further detail below), and allow for increased savings accuracy while minimizing customer data collection burden. This average baseline approach will also preserve implementation efficiencies by streamlining application processing and savings calculations.

If, for a particular measure, baseline studies or other supporting evaluation material is not available for determining an average existing condition baseline, standard TRM assumptions will be used until new information becomes available through evaluation

⁷⁶ For example, a granular approach may be warranted for certain HVAC measures to distinguish the prevalence of steam heating in downstate multifamily buildings. Where granular data is not available, a statewide average should be used.

activities or through other pertinent research facilitated by the TRM Management Committee ("MC"). Evaluation activities that will contribute to improving LMI-specific baseline assumptions will be detailed as part of established ETIP/SEEP and Verified Gross Savings Specification ("VGS Spec") processes.⁷⁷ As baseline assumptions become available, they will be documented in VGS Specs, incorporated into programs, and, through coordination with the TRM MC, documented in the TRM.

Custom

For custom measures, project-specific existing condition baselines will be used, facilitated through tools such as EmPCalc.⁷⁸ Analyses of current custom calculation tools, such as EmPCalc, are ongoing, and updates will be made to align savings methodologies in these tools with the TRM and an existing condition approach, as necessary.

8.2 Evaluation of Initiatives

Evaluation activities for the LMI Portfolio will be coordinated among the Program Administrators where possible and will be designed to provide insight into Performance Metrics tied to savings, participation, customer experience, and Portfolio efficiencies. These activities will also be incorporated into the Energy Efficiency and Building Electrification Performance Management & Improvement ("PM&I") process.⁷⁹

It is important to note that statewide evaluations may be difficult to implement for all programs given that each Program Administrator will have a unique LMI Portfolio mix, and that Utilities have different Rate Case periods that inform evaluation cycles. Additionally, individual Program Administrators may have recently evaluated, or be currently evaluating, certain programs that include LMI customers. These factors will inform each Program Administrator's evaluation priorities and activities schedule. Given this, the Program Administrators will focus the majority of upcoming coordinated evaluations on non-program specific activities that will be able to provide meaningful insights across the State. As discussed earlier, this may include coordinated baseline

⁷⁷ For each program a Program Administrator administers, the Program Administrator will submit a VGS Spec. Where there are coordinated programmatic and/or evaluation activities, VGS Specs will be coordinated as well.

⁷⁸ EmpCalc is a custom modeling tool used by NYSERDA.

⁷⁹ See, NE: NY Proceeding, Commencement of Energy Efficiency & Building Electrification Performance Management & Improvement Process, (filed May 29, 2020.) See also, Implementation Order, pp. 60-61. ⁸⁰ Further discussion of programmatic evaluation frequency can be found in Clean Energy Guidance CE:08, Gross Savings Verification Guidance ("CE-08"). This guidance provides options for scheduling evaluation (Gross Savings Analysis) work, and states that "a PA may use evaluation results conducted on a program's performance within the preceding five-year period, if the program has not significantly changed and the evaluation results calculated a realization rate consistent with this guidance." CE-08, p. 9.

studies, with longitudinal updates. This may also include research to assist in identification of LMI buildings and customers to better serve these customers and communities, research around non-energy benefits, such as household safety and comfort, and other process evaluation activities.

VGS-compliant impact evaluation activities for programs that span all or many Program Administrators will also be prioritized in the short-term. Where one Program Administrator is implementing a program on behalf of other Program Administrators, as in the case of EmPower NY, the implementing Program Administrator will take primary ownership of evaluation activities, including the VGS Spec development process, and results from the administrator's evaluation will be used in the reporting of the savings achieved. The complex coordination needed for such cross-Program Administrator evaluations will be conducted at a program-level as part of larger implementation arrangements and will be refined throughout 2020.

Collectively, these activities will provide important insight needed in the short-term to optimize LMI Portfolio offerings and increase the number of households served annually, while allowing the Program Administrators to work through data sharing, evaluation funding, evaluation timing, and other complexities.

To facilitate future coordinated evaluation activities, the Program Administrators will also identify specific opportunities for collaboration, targeting activities where Program Administrators share customers and/or implementation contractors, or otherwise overlap. The Program Administrators will also collaborate on data collection tools and practices to streamline statewide evaluation and will embed LMI data collection into existing program evaluation when LMI customers are being served.

Appendix A: Budgets by Sector

A.1 Portfolio Level Budgets by Sector (\$000)

Initiative	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Existing 1-4 Family	\$24,859	\$39,717	\$47,422	\$50,292	\$53,939	\$59,208	\$10,827				\$286,264
Homes											
Existing Affordable	\$8,681	\$22,418	\$33,283	\$50,337	\$74,497	\$90,097	\$22,991	\$19,195	\$16,575	\$3,603	\$341,677
Multifamily Programs											
Affordable New	\$10,847	\$16,050	\$13,155	\$19,893	\$20,593	\$21,057	\$12,488	\$6,218	\$2,340		\$122,641
Construction											
Customer Awareness,	\$3,652	\$9,908	\$10,252	\$10,384	\$10,077	\$10,191	\$600				\$55,063
Outreach &											
Engagement											
Pilots and	\$200	\$544	\$550	\$550	\$400	\$200					\$2,444
Demonstrations											
Beneficial	\$1,200	\$20,700	\$8,100								\$30,000
Electrification											
Additional LMI	\$4,222	\$4,182	\$100	\$90	\$65	\$65					\$8,723
Initiatives											
Healthy Homes Pilot	\$700	\$5,686	\$400								\$6,786
Portfolio	\$1,506	\$1,906	\$2,373	\$3,026	\$3,734	\$4,565					\$17,110
Administration	. ,	· •				· •					. ,
Portfolio EM&V	\$789	\$1,162	\$1,384	\$1,722	\$2,059	\$2,429					\$9,546
Total	\$56,655	\$122,272	\$117,020	\$136,295	\$165,364	\$187,812	\$46,906	\$25,412	\$18,914	\$3,603	\$880,254

A.2 Portfolio Budgets Summary by Sector

	Total	Percentage of Portfolio
Existing 1-4 Family Homes	\$286,264	33%
Existing Affordable Multifamily Programs (Including Multifamily-related Affordable New Construction)	\$446,166	51%
Affordable New Construction (non-Multi-family)	\$18,152	2%
Customer Awareness, Outreach & Engagement	\$55,063	6%
Pilots and Demonstrations	\$2,444	0%
Beneficial Electrification	\$30,000	3%
Additional LMI Initiatives	\$8,723	1%
Healthy Homes Pilot	\$6,786	1%
Portfolio Administration	\$17,110	2%
Portfolio EM&V	\$9,546	1%
Total	\$880,254	

A.3 Utility Incremental NE: NY Funding

	2020 - 2025
Incremental funding allocated to affordable multifamily	\$ 194,946,536
Total incremental funding	\$ 302,226,982
Percentage of incremental funding allocated to	
affordable multifamily ⁸¹	65%

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⁸¹ The Accelerated Efficiency Order directed that at a minimum, 40% of the collective incremental LMI funding be committed to serving affordable multifamily buildings. The funding in this table represents the allocated utility incremental LMI funding from the Accelerated Efficiency Order and the Implementation Order. This funding does not include additional utility funding that will be transferred into the LMI Portfolio from NFGDC and National Grid (KEDLI) (refer to Section 3 for details on NFGDC and KEDLI funding).

Appendix B: Budgets and Targets by Program Administrator B.1 Central Hudson

Electric Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$28,474	\$74,001	\$95,953	\$123,225	\$159,918	\$204,986	\$686,557
Program Implementation	\$2,000	\$5,000	\$6,400	\$8,192	\$10,486	\$13,444	\$45,522
Total Budget	\$30,474	\$79,001	\$102,353	\$131,417	\$170,404	\$218,430	\$732,079
Existing Affordable Multifamily							
Buildings							
Incentives & Services							
Program Implementation							
Total Budget							
Affordable New Construction							
Incentives & Services	\$602	\$602					\$1,204
Program Implementation							
Total Budget	\$602	\$602					\$1,204
Customer Awareness, Outreach							
& Engagement							
Incentives & Services	\$6,345	\$13,259	\$16,486	\$20,616	\$24,167	\$30,986	\$111,858
Program Implementation	\$190	\$476	\$609	\$780	\$999	\$1,280	\$4,335
Total Budget	\$6,535	\$13,735	\$17,095	\$21,396	\$25,166	\$32,266	\$116,193
Portfolio Administration	\$3,275	\$8,097	\$6,863	\$7,216	\$5,948	\$4,920	\$36,319
Portfolio EM&V	\$1,264	\$3,137	\$3,907	\$4,949	\$6,232	\$7,906	\$27,395
Total Portfolio Budget	\$42,150	\$104,572	\$130,218	\$164,977	\$207,750	\$263,522	\$913,189

Gas Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$57,307	\$139,890	\$237,544	\$304,684	\$392,018	\$505,496	\$1,636,939
Program Implementation	\$3,000	\$8,650	\$15,287	\$19,873	\$25,835	\$28,069	\$100,715
Total Budget	\$60,307	\$148,540	\$252,831	\$324,558	\$417,853	\$533,565	\$1,737,654
Existing Affordable Multifamily							
Buildings							
Incentives & Services							
Program Implementation							
Total Budget							
Affordable New Construction							
Incentives & Services	\$14,529	\$14,529					\$29,059
Program Implementation							
Total Budget	\$14,529	\$14,529					\$29,059
Customer Awareness, Outreach							
& Engagement							
Incentives & Services	\$6,914	\$19,936	\$35,233	\$45,803	\$59,544	\$77,376	\$244,808
Program Implementation	\$286	\$824	\$1,456	\$1,892	\$2,460	\$3,197	\$10,115
Total Budget	\$7,200	\$20,760	\$36,689	\$47,696	\$62,005	\$80,573	\$254,923
Portfolio Administration	\$3,275	\$8,097	\$6,863	\$7,216	\$5,948	\$4,920	\$36,319
Portfolio EM&V	\$2,639	\$5,936	\$9,167	\$11,736	\$15,025	\$19,146	\$63,649
Total Portfolio Budget	\$87,951	\$197,862	\$305,551	\$391,205	\$500,831	\$638,204	\$2,121,604

Electric Target Distribution (MWh)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	61	152	192	244	312	396	1,356
Existing Affordable Multifamily							
Buildings							
Affordable New Construction	1	1					2
Customer Awareness, Outreach	13	27	33	41	47	60	221
& Engagement							
Total	75	180	224	284	359	456	1,579

Gas Target Distribution (Dth)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	607	1,469	2,456	3,139	4,019	5,159	16,848
Existing Affordable Multifamily							
Buildings							
Affordable New Construction	147	146					293
Customer Awareness, Outreach	73	209	365	473	612	792	2,525
& Engagement							
Total	827	1,824	2,821	3,613	4,631	5,951	19,666

B.2 Con Edison

Electric Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services		\$168,000	\$218,400	\$285,600	\$369,600	\$504,000	\$1,545,600
Program Implementation		\$32,000	\$41,600	\$54,400	\$70,400	\$96,000	\$294,400
Total Budget		\$200,000	\$260,000	\$340,000	\$440,000	\$600,000	\$1,840,000
Existing Affordable Multifamily							
Buildings							
Incentives & Services	\$3,683,588	\$3,909,084	\$5,267,397	\$6,951,505	\$8,611,267	\$11,140,732	\$39,563,574
Program Implementation	\$701,636	\$744,588	\$1,003,314	\$1,324,096	\$1,640,241	\$2,122,044	\$7,535,919
Total Budget	\$4,385,224	\$4,653,672	\$6,270,711	\$8,275,601	\$10,251,509	\$13,262,776	\$47,099,492
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach							
& Engagement							
Incentives & Services	\$1,044,000	\$372,541	\$372,541	\$372,541	\$372,541	\$372,541	\$2,906,706
Program Implementation	\$1,250,000	\$32,395	\$32,395	\$32,395	\$32,395	\$32,395	\$1,411,974
Total Budget	\$2,294,000	\$404,936	\$404,936	\$404,936	\$404,936	\$404,936	\$4,318,680
Portfolio Administration	\$512,000	\$387,235	\$394,753	\$402,647	\$410,935	\$419,638	\$2,527,208
Portfolio EM&V	\$288,000	\$217,820	\$222,048	\$226,489	\$231,151	\$236,047	\$1,421,555
Total Portfolio Budget	\$7,479,224	\$5,863,662	\$7,552,448	\$9,649,673	\$11,738,531	\$14,923,397	\$57,206,935

Gas Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services		\$511,000	\$638,750	\$798,438	\$998,047	\$1,247,559	\$4,193,793
Program Implementation		\$189,000	\$236,250	\$295,313	\$369,141	\$461,426	\$1,551,129
Total Budget		\$700,000	\$875,000	\$1,093,750	\$1,367,188	\$1,708,984	\$5,744,922
Existing Affordable Multifamily							
Buildings							
Incentives & Services	\$2,263,000	\$8,487,074	\$11,213,771	\$14,603,129	\$17,937,154	\$23,086,923	\$77,591,051
Program Implementation	\$837,000	\$3,139,055	\$4,147,559	\$5,401,157	\$6,634,290	\$8,538,999	\$28,698,060
Total Budget	\$3,100,000	\$11,626,129	\$15,361,330	\$20,004,287	\$24,571,443	\$31,625,922	\$106,289,111
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach &							
Engagement							
Incentives & Services	\$285,000	\$413,905	\$413,905	\$413,905	\$413,905	\$413,905	\$2,354,526
Program Implementation	\$458,000	\$26,419	\$26,419	\$26,419	\$26,419	\$26,419	\$590,097
Total Budget	\$743,000	\$440,325	\$440,325	\$440,325	\$440,325	\$440,325	\$2,944,623
Portfolio Administration	\$240,000	\$366,170	\$378,290	\$391,017	\$404,380	\$418,411	\$2,198,268
Portfolio EM&V	\$360,000	\$549,254	\$567,435	\$586,526	\$606,570	\$627,617	\$3,297,403
Total Portfolio Budget	\$4,443,000	\$13,681,878	\$17,622,380	\$22,515,904	\$27,389,906	\$34,821,259	\$120,474,327

Electric Target Distribution (MWh	Electric Target Distribution (MWh)									
	2020	2021	2022	2023	2024	2025	Total			
Existing 1-4 Family Homes		500	650	850	1,100	1,500	4,600			
Existing Affordable Multifamily	6,000	6,500	9,279	12,717	16,090	21,214	71,800			
Buildings										
Affordable New Construction										
Customer Awareness, Outreach	23,000	3,171	3,171	3,171	3,171	3,171	38,855			
& Engagement										
Total	29,000	10,171	13,100	16,738	20,361	25,885	115,255			

Gas Target Distribution (Dth)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes		10,000	12,500	15,625	19,531	24,414	82,070
Existing Affordable Multifamily	27,678	109,000	142,979	185,156	226,371	290,284	981,468
Buildings							
Affordable New Construction							
Customer Awareness,	13,156	7,661	7,661	7,661	7,661	7,661	51,461
Outreach & Engagement							
Total	40,834	126,661	163,140	208,442	253,563	322,359	1,114,999

B.3 KEDLI

The below budgets and targets differ from the funding allocated in the Implementation Order because additional funding and the associated target, calculated at the LMI Portfolio run rate, has been added from KEDLI's SEEP portfolio to support the HEAT program. This program was originally approved and funded through the Company's rate case, but to better align with the LMI Portfolio, it will be funded and managed through the LMI Portfolio and needed additional budget to reflect the existing level of program operation and the expanded program activities proposed in the Company's rate case and this LMI Portfolio.

Gas Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$364,800	\$1,900,000	\$1,900,000	\$1,900,000	\$1,900,000	\$2,006,882	\$9,971,682
Program Implementation	\$57,600	\$300,000	\$300,000	\$300,000	\$300,000	\$316,876	\$1,574,476
Total Budget	\$422,400	\$2,200,000	\$2,200,000	\$2,200,000	\$2,200,000	\$2,323,758	\$11,546,158
Existing Affordable Multifamily Buildings							
Incentives & Services		\$640,426	\$1,081,270	\$1,517,716	\$2,092,445	\$2,643,210	\$7,975,066
Program Implementation		\$101,120	\$170,727	\$239,639	\$330,386	\$417,349	\$1,259,221
Total Budget		\$741,546	\$1,251,997	\$1,757,355	\$2,422,831	\$3,060,559	\$9,234,287
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach &							
Engagement							
Incentives & Services		\$59,299	\$100,118	\$140,529	\$193,745	\$244,742	\$738,432
Program Implementation		\$9,363	\$15,808	\$22,189	\$30,591	\$38,643	\$116,595
Total Budget		\$68,662	\$115,926	\$162,718	\$224,336	\$283,385	\$855,027
Portfolio Administration	\$95,593	\$273,655	\$324,357	\$374,552	\$440,652	\$515,246	\$2,024,054
Portfolio EM&V	\$21,583	\$136,828	\$162,178	\$187,276	\$220,326	\$257,623	\$985,814
Total Portfolio Budget	\$539,576	\$3,420,690	\$4,054,458	\$4,681,901	\$5,508,144	\$6,440,570	\$24,645,339

Gas Target Distribution (Dth)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	4,995	23,958	23,233	23,547	23,690	25,619	125,042
Existing Affordable Multifamily		6,762	13,178	18,498	25,503	32,216	96,157
Buildings							
Affordable New Construction							
Customer Awareness, Outreach		950	1,126	1,300	1,530	1,789	6,695
& Engagement							
Total	4,995	31,670	37,537	43,345	50,723	59,624	227,894

B.4 KEDNY

Gas Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$123,186	\$185,887	\$286,941	\$435,434	\$722,250	\$992,268	\$2,745,966
Program Implementation	\$23,097	\$34,854	\$53,801	\$81,644	\$135,422	\$186,050	\$514,869
Total Budget	\$146,284	\$220,741	\$340,743	\$517,078	\$857,672	\$1,178,318	\$3,260,835
Existing Affordable Multifamily Buildings							
Incentives & Services	\$591,295	\$904,649	\$1,655,430	\$2,512,118	\$3,514,952	\$4,829,037	\$14,007,480
Program Implementation	\$110,868	\$169,622	\$310,393	\$471,022	\$659,054	\$905,444	\$2,626,402
Total Budget	\$702,162	\$1,074,271	\$1,965,823	\$2,983,140	\$4,174,006	\$5,734,481	\$16,633,882
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach &							
Engagement							
Incentives & Services							
Program Implementation							
Total Budget							
Portfolio Administration	133,452	\$185,887	\$331,086	\$502,424	\$722,250	\$992,268	\$2,867,367
Portfolio EM&V	\$44,655	\$68,158	\$121,398	\$184,222	\$264,825	\$363,832	\$1,047,090
Total Portfolio Budget	1,026,553	\$1,549,056	\$2,759,050	\$4,186,863	\$6,018,754	\$8,268,898	\$23,809,174

Gas Target Distribution (Dth)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	1,564	2,085	4,516	6,042	10,124	14,732	39,062
Existing Affordable Multifamily	7,939	12,255	21,026	32,718	45,595	61,818	181,352
Buildings							
Affordable New Construction							
Customer Awareness, Outreach							
& Engagement							
Total	9,503	14,340	25,542	38,760	55,719	76,550	220,414

B.5 National Fuel Gas

Gas Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$4,040,000	\$4,624,585	\$5,354,886	\$5,592,742	\$6,055,862	\$6,618,700	\$32,286,775
Program Implementation	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$2,700,000
Total Budget	\$4,490,000	\$5,074,585	\$5,804,886	\$6,042,742	\$6,505,862	\$7,068,700	\$34,986,775
Existing Affordable Multifamily Buildings							
Incentives & Services							
Program Implementation							
Total Budget							
Affordable New Construction Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach & Engagement							
Incentives & Services							
Program Implementation							
Total Budget							
Portfolio Administration	\$308,733	\$321,591	\$318,302	\$319,242	\$315,862	\$313,121	\$1,896,851
Portfolio EM&V				\$37,563	\$37,563	\$37,563	\$112,689
Total Portfolio Budget	\$4,798,733	\$5,396,176	\$6,123,188	\$6,399,546	\$6,859,287	\$7,419,384	\$36,996,315

Gas Target Distribution (Dth)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	49,468	56,589	64,813	67,371	71,627	76,812	386,681
Existing Affordable Multifamily							
Buildings							
Affordable New Construction							
Customer Awareness, Outreach							
& Engagement							
Total	49,468	56,589	64,813	67,371	71,627	76,812	386,681

B.6 New York State Energy Research & Development Authority

B.6.1 CEF Budget Commitments

	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$22,528	\$22,684	\$29,192	\$25,105	\$26,331	\$26,589	\$152,428
Program Implementation	\$5,632	\$5,418	\$5,926	\$5,215	\$5,203	\$5,254	\$32,648
Total Budget	\$28,160	\$28,101	\$35,118	\$30,320	\$31,534	\$31,843	\$185,076
Existing Affordable Multifamily							
Buildings							
Incentives & Services	\$11,017	\$27,803	\$27,934	\$18,703	\$17,613	\$16,343	\$119,411
Program Implementation	\$2,503	\$6,206	\$6,480	\$4,092	\$4,007	\$4,030	\$27,319
Total Budget	\$13,520	\$34,009	\$34,415	\$22,795	\$21,620	\$20,373	\$146,731
Affordable New Construction							
Incentives & Services	\$17,324	\$14,881	\$15,200	\$15,200	\$15,200	\$15,073	\$92,879
Program Implementation	\$4,331	\$3,720	\$3,800	\$3,800	\$3,800	\$3,768	\$23,220
Total Budget	\$21,655	\$18,601	\$19,000	\$19,000	\$19,000	\$18,842	\$116,098
Customer Awareness, Outreach &							
Engagement							
Incentives & Services	\$702	\$8,663	\$8,682	\$8,705	\$8,756	\$8,635	\$44,142
Program Implementation							
Total Budget	\$702	\$8,663	\$8,682	\$8,705	\$8,756	\$8,635	\$44,142
Pilots and Demonstrations							
Incentives & Services	\$450	\$394	\$400	\$400	\$400	\$400	\$2,444
Program Implementation							
Total Budget	\$450	\$394	\$400	\$400	\$400	\$400	\$2,444
LMI Solar							
Incentives & Services	\$6,158	\$2,565					\$8,723
Program Implementation							
Total Budget	\$6,158	\$2,565					\$8,723
Electrification							
Incentives & Services	\$2,700	\$18,000	\$6,300				\$27,000
Program Implementation	\$300	\$2,000	\$700				\$3,000

CEF Budget Distribution (\$000)							
Total Budget	\$3,000	\$20,000	\$7,000				\$30,000
Healthy Homes Pilot							
Incentives & Services	\$4,900	\$800					\$5,700
Program Implementation	\$768	\$318					\$1,086
Total Budget	\$5,668	\$1,118					\$6,786
Total Portfolio Budget	\$79,312	\$113,452	\$104,614	\$81,220	\$81,309	\$80,093	\$540,000

B.6.2 CEF Budget Expenditures

CEF Budget Distribution (\$	000)										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Existing 1-4 Family											
Homes											
Incentives & Services	\$14,868	\$22,631	\$26,979	\$26,495	\$25,914	\$26,501	\$9,040				\$152,428
Program Implementation	\$3,717	\$5,491	\$5,753	\$5,457	\$5,207	\$5,237	\$1,786				\$32,648
Total Budget	\$18,586	\$28,121	\$32,732	\$31,951	\$31,121	\$31,738	\$10,827				\$185,076
Existing Affordable Multifamily Buildings	, ,										
Incentives & Services		\$2,600	\$5,672	\$11,990	\$23,703	\$25,354	\$18,572	\$15,378	\$13,260	\$2,883	\$119,411
Program Implementation		\$512	\$891	\$2,405	\$5,379	\$5,861	\$4,419	\$3,817	\$3,315	\$721	\$27,319
Total Budget		\$3,112	\$6,563	\$14,395	\$29,082	\$31,215	\$22,991	\$19,195	\$16,575	\$3,603	\$146,731
Affordable New Construction											
Incentives & Services	\$8,662	\$12,456	\$9,927	\$14,943	\$15,048	\$15,006	\$9,990	\$4,974	\$1,872		\$92,879
Program Implementation	\$2,166	\$3,114	\$2,482	\$3,736	\$3,762	\$3,752	\$2,498	\$1,244	\$468		\$23,220
Total Budget	\$10,828	\$15,571	\$12,408	\$18,678	\$18,810	\$18,758	\$12,488	\$6,218	\$2,340		\$116,098
Customer Awareness, Outreach & Engagement											

CEF Budget Distribution (\$6	000)										
Incentives & Services	\$526	\$8,132	\$8,677	\$8,699	\$8,743	\$8,764	\$600				\$44,142
Program Implementation											
Total Budget	\$526	\$8,132	\$8,677	\$8,699	\$8,743	\$8,764	\$600				\$44,142
Pilots and											
Demonstrations	\$200	\$544	\$550	\$550	\$400	\$200					\$2,444
Incentives & Services	7200	ŞJTT	7550	7550	у-100	7200					¥2, 444
Program Implementation	\$200	\$544	\$550	\$550	\$400	\$200					\$2,444
Total Budget	\$200	Ş 544	ŞSSU	ŞSSU	\$400	\$200					\$2,444
LMI Solar											
Incentives & Services	\$4,222	\$4,182	\$100	\$90	\$65	\$65					\$8,723
Program Implementation											
Total Budget	\$4,222	\$4,182	\$100	\$90	\$65	\$65					\$8,723
Electrification											
Incentives & Services	\$1,000	\$18,700	\$7,300								\$27,000
Program Implementation	\$200	\$2,000	\$800								\$3,000
Total Budget	\$1,200	\$20,700	\$8,100								\$30,000
Healthy Homes Pilot											
Incentives & Services	\$500	\$5,000	\$200								\$5,700
Program Implementation	\$200	\$686	\$200								\$1,086
Total Budget	\$700	\$5,686	\$400								\$6,786
Total Portfolio Budget	\$36,261	\$86,047	\$69,531	\$74,364	\$88,221	\$90,740	\$46,906	\$25,412	\$18,914	\$3,603	\$540,000

B.6.3 Electric Savings Commitments

Electric Savings Distribution (MWh)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	4,577	4,593	5,645	5,128	5,370	5,422	30,735
Existing Affordable Multifamily Buildings	9,925	32,129	35,062	21,001	21,099	21,332	140,549
Affordable New Construction	25,334	21,761	22,228	22,228	22,228	22,043	135,823
Customer Awareness, Outreach &							
Engagement							
Pilots and Demonstrations		55	55	55	55	55	277
Healthy Homes Pilot	30	240	30				300
Total	39,866	58 , 779	63,021	48,413	48,752	48,853	307,684

B.6.4 MMBtu Savings Commitments

MMBtu Savings Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	135,912	136,792	175,046	151,562	158,930	160,488	918,729
Existing Affordable Multifamily	209,549	743,729	752,030	560,731	562,480	566,664	3,395,184
Buildings							
Affordable New Construction	237,324	203,853	208,224	208,224	208,224	206,490	1,272,338
Customer Awareness, Outreach &							
Engagement							
Pilots and Demonstrations		1,984	1,984	1,984	1,984	1,984	9,920
Healthy Homes Pilot	1,000	8,000	1,000				10,000
Total	583,785	1,094,358	1,138,284	922,501	931,618	935,626	5,606,170

B.6.5 Electric Savings Acquired

Electric Savings Distribution (MWh)											
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Existing 1-4 Family Homes	3,433	4,589	5,382	5,257	5,309	5,409	1,356				30,735
Existing Affordable Multifamily Buildings		10,571	12,721	27,863	31,736	32,385	14,116	11,156			140,549
Affordable New Construction	8,445	15,699	23,108	22,072	22,228	22,166	14,757	7,348			135,823
Customer Awareness, Outreach & Engagement											
Pilots and Demonstrations			11	55	55	55	55	44			277
Healthy Homes Pilot	30	240	30								300
Total	11,908	31,099	41,252	55,248	59,329	60,016	30,284	18,548	-	-	307,684

B.6.6 MMBtu Savings Acquired

MMBtu Savings Dist	ribution										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Existing 1-4 Family Homes	101,934	136,572	165,482	157,433	157,088	160,099	40,122				918,729
Existing Affordable Multifamily Buildings	-	489,676	478,525	653,237	706,839	716,196	196,208	154,504			3,395,184
Affordable New Construction Customer Awareness, Outreach & Engagement	79,108	147,059	216,467	206,767	208,224	207,646	138,238	68,830			1,272,338
Pilots and Demonstrations			397	1,984	1,984	1,984	1,984	1,587			9,920
Healthy Homes Pilot	1,000	8,000	1,000								
Total	182,042	781,307	861,870	1,019,421	1,074,134	1,085,924	376,552	224,921			5,606,170

B.6.7 Indirect Savings

MMBtu				
	2020	2025	2030	Total
Affordable Multifamily	10,945	583,882	3,522,947	4,117,774
NYS Healthy Homes VBP Pilot	6,400	161,600	1,702,200	1,870,200
Total	17,345	745,482	5,225,147	5,987,974
MWh				
	2020	2025	2030	Total
Affordable Multifamily	442	13,297	184,009	197,749
NYS Healthy Homes VBP Pilot	192	4,858	50,950	56,000
Total	634	18,156	234,959	253,749

B.6.8 CO2 Emission Reduction (metric tons) Annual

CO2e Emission Reduction (metric tons) Annual										
	2020	2025	2030	Total						
Existing Affordable Multifamily Buildings	861.98	40,785.37	294,960.53	336,608						
Healthy Homes Pilot	463.00	11,691.00	123,027.00	135,181						
Total	1,325	52,476	417,988	471,789						

CO2e Emission Reduction (metric t	tons) Lifetime			
	2020	2021	2022	2023
Existing Affordable Multifamily Buildings	8,619.76	445,041.88	5,260,407.68	5,714,069
Healthy Homes Pilot	8,680.00	219,243.00	2,307,601.00	2,535,524
Total	17,300	664,285	7,568,009	8,249,593

B.7 New York State Gas & Electric

Electric Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$68,699	\$228,995	\$365,581	\$593,590	\$853,420	\$1,097,994	\$3,208,280
Program Implementation	\$4,751	\$4,626	\$10,750	\$24,854	\$63,773	\$90,692	\$199,446
Total Budget	\$73,450	\$233,621	\$376,331	\$618,444	\$917,193	\$1,188,686	\$3,407,726
Existing Affordable Multifamily							
Buildings							
Incentives & Services	\$18,402	\$103,412	\$108,314	\$113,291	\$118,505	\$123,830	\$585,754
Program Implementation	\$12,340	\$16,370	\$24,782	\$36,675	\$68,118	\$78,298	\$236,583
Total Budget	\$30,742	\$119,782	\$133,096	\$149,966	\$186,623	\$202,128	\$822,337
Affordable New Construction							
Incentives & Services		\$168,084	\$268,934	\$437,017	\$628,633	\$808,482	\$2,311,150
Program Implementation		\$3,491	\$8,132	\$18,816	\$48,306	\$68,670	\$147,416
Total Budget		\$171,575	\$277,066	\$455,834	\$676,939	\$877,152	\$2,458,566
Customer Awareness, Outreach &							
Engagement							
Incentives & Services		\$169,706	\$169,706	\$169,706	\$22,506	\$22,506	\$554,130
Program Implementation		\$32,483	\$47,286	\$67,331	\$32,120	\$35,503	\$214,722
Total Budget		\$202,189	\$216,992	\$237,037	\$54,626	\$58,009	\$768,852
Portfolio Administration	\$3,418	\$11,394	\$18,190	\$29,535	\$42,463	\$54,632	\$159,633
Portfolio EM&V	\$5,127	\$17,091	\$27,285	\$44,303	\$63,695	\$81,949	\$239,450
Total Portfolio Budget	\$112,738	\$755,652	\$1,048,959	\$1,535,120	\$1,941,539	\$2,462,556	\$7,856,564

Gas Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$286,807	\$956,023	\$1,526,249	\$2,478,154	\$3,562,905	\$4,583,968	\$13,394,105
Program Implementation	\$34,781	\$49,832	\$99,671	\$194,434	\$306,546	\$418,491	\$1,103,755
Total Budget	\$321,588	\$1,005,855	\$1,625,920	\$2,672,588	\$3,869,451	\$5,002,459	\$14,497,861
Existing Affordable Multifamily							
Buildings							
Incentives & Services	\$4,172	\$107,315	\$113,835	\$120,387	\$127,204	\$134,064	\$606,976
Program Implementation	\$5,098	\$32,003	\$42,572	\$54,149	\$62,773	\$70,244	\$266,840
Total Budget	\$9,270	\$139,318	\$156,407	\$174,536	\$189,977	\$204,308	\$873,816
Affordable New Construction							
Incentives & Services		\$112,056	\$179,289	\$291,345	\$419,089	\$538,988	\$1,540,767
Program Implementation		\$7,925	\$15,886	\$31,015	\$48,923	\$66,764	\$170,512
Total Budget		\$119,981	\$195,175	\$322,360	\$468,012	\$605,752	\$1,711,279
Customer Awareness, Outreach &							
Engagement							
Incentives & Services		\$45,694	\$45,694	\$45,694	\$45,694	\$45,694	\$228,470
Program Implementation		\$43,170	\$54,086	\$64,981	\$77,165	\$81,879	\$321,280
Total Budget		\$88,864	\$99,780	\$110,675	\$122,859	\$127,573	\$549,750
Portfolio Administration	\$7,976	\$26,586	\$42,443	\$68,916	\$99,081	\$127,476	\$372,478
Portfolio EM&V	\$11,964	\$39,879	\$63,665	\$103,373	\$148,622	\$191,214	\$558,716
Total Portfolio Budget	\$350,797	\$1,420,484	\$2,183,391	\$3,452,447	\$4,898,000	\$6,258,781	\$18,563,900

Electric Target Distribution (MWh)	Electric Target Distribution (MWh)								
	2020	2021	2022	2023	2024	2025	Total		
Existing 1-4 Family Homes	88	294	469	761	1,095	1,408	4,115		
Existing Affordable Multifamily	229	1,039	1,081	1,123	1,169	1,216	5,857		
Buildings									
Affordable New Construction		222	355	576	829	1,066	3,048		
Customer Awareness, Outreach		2,062	2,062	2,062	551	551	7,290		
& Engagement									
Total	317	3,617	3,967	4,523	3,644	4,241	20,309		

Gas Target Distribution (Dth)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	2,137	7,123	11,371	18,463	26,545	34,152	99,789
Existing Affordable Multifamily	313	4,574	4,857	5,142	5,436	5,732	26,054
Buildings							
Affordable New Construction		1,133	1,812	2,945	4,236	5,448	15,575
Customer Awareness, Outreach		6,170	6,170	6,170	6,682	6,682	31,875
& Engagement							
Total	2,450	19,000	24,210	32,720	42,898	52,014	173,293

B.8 Niagara Mohawk

Electric Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$96,833	\$144,667	\$289,156	\$500,143	\$703,516	\$947,517	\$2,681,832
Program Implementation	\$18,156	\$27,125	\$54,217	\$93,777	\$131,909	\$177,659	\$502,843
Total Budget	\$114,989	\$171,792	\$343,373	\$593,920	\$835,426	\$1,125,176	\$3,184,675
Existing Affordable Multifamily							
Buildings							
Incentives & Services	\$85,441	\$210,801	\$365,250	\$631,760	\$888,652	\$1,196,863	\$3,378,766
Program Implementation	\$16,020	\$39,525	\$68,484	\$118,455	\$166,622	\$224,412	\$633,519
Total Budget	\$101,461	\$250,326	\$433,734	\$750,215	\$1,055,274	\$1,421,275	\$4,012,285
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach &							
Engagement							
Incentives & Services	\$71,115						\$71,115
Program Implementation	\$3,603						\$3,603
Total Budget	\$74,718						\$74,718
Portfolio Administration	\$53,443	\$72,334	\$133,164	\$230,329	\$323,988	\$436,356	\$1,249,614
Portfolio EM&V	\$11,392	\$22,217	\$40,900	\$70,744	\$99,511	\$134,024	\$378,787
Total Portfolio Budget	\$356,003	\$516,668	\$951,171	\$1,645,208	\$2,314,198	\$3,116,831	\$8,900,079

Gas Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$285,752	\$385,779	\$710,208	\$1,228,422	\$1,727,934	\$2,327,234	\$6,665,328
Program Implementation	\$53,578	\$72,334	\$133,164	\$230,329	\$323,988	\$436,356	\$1,249,749
Total Budget	\$339,330	\$458,113	\$843,372	\$1,458,751	\$2,051,922	\$2,763,590	\$7,915,078
Existing Affordable Multifamily							
Buildings							
Incentives & Services	\$272,461	\$424,357	\$781,229	\$1,351,264	\$1,900,728	\$2,559,957	\$7,289,995
Program Implementation	\$51,086	\$79,567	\$146,480	\$253,362	\$356,386	\$479,992	\$1,366,874
Total Budget	\$323,548	\$503,924	\$927,709	\$1,604,626	\$2,257,114	\$3,039,949	\$8,656,870
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach &							
Engagement							
Incentives & Services							
Program Implementation							
Total Budget							
Portfolio Administration	\$132,908	\$192,889	\$355,104	\$614,211	\$863,967	\$1,163,617	\$3,322,696
Portfolio EM&V	\$34,888	\$50,633	\$93,215	\$161,230	\$226,791	\$305,449	\$872,208
Total Portfolio Budget	\$830,674	\$1,205,559	\$2,219,400	\$3,838,818	\$5,399,795	\$7,272,605	\$20,766,851

Electric Target Distribution (MWh)									
	2020	2021	2022	2023	2024	2025	Total		
Existing 1-4 Family Homes	56	254	535	980	1,403	1,898	5,126		
Existing Affordable Multifamily	59	421	892	1,651	2,388	3,285	8,696		
Buildings									
Affordable New Construction									
Customer Awareness, Outreach	1,616						1,616		
& Engagement									
Total	1,731	674	1,427	2,631	3,791	5,182	15,438		

Gas Target Distribution (Dth)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	3,715	5,289	9,839	16,859	23,355	30,397	89,456
Existing Affordable Multifamily	3,975	5,872	10,707	18,679	26,634	36,930	102,795
Buildings							
Affordable New Construction							
Customer Awareness, Outreach							
& Engagement							
Total	7,690	11,161	20,546	35,538	49,989	67,327	192,251

B.9 Orange & Rockland

Electric Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$18,817	\$112,567	\$168,399	\$217,116	\$265,789	\$300,612	\$1,083,300
Program Implementation							
Total Budget	\$18,817	\$112,567	\$168,399	\$217,116	\$265,789	\$300,612	\$1,083,300
Existing Affordable Multifamily Buildings							
Incentives & Services							
Program Implementation							
Total Budget							
Affordable New Construction							
Incentives & Services	\$1,201	\$7,185	\$10,749	\$13,858	\$16,965	\$19,188	\$69,147
Program Implementation							
Total Budget	\$1,201	\$7,185	\$10,749	\$13,858	\$16,965	\$19,188	\$69,147
Customer Awareness, Outreach &							
Engagement							
Incentives & Services		\$246,826					\$246,826
Program Implementation							
Total Budget		\$246,826					\$246,826
Portfolio Administration	\$2,500	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$52,500
Portfolio EM&V		\$5,955	\$7,694	\$9,923	\$12,150	\$13,744	\$49,466
Total Portfolio Budget	\$22,519	\$382,533	\$196,841	\$250,897	\$304,905	\$343,544	\$1,501,239

Gas Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$44,691	\$323,937	\$473,142	\$610,029	\$746,793	\$844,640	\$3,043,232
Program Implementation							
Total Budget	\$44,691	\$323,937	\$473,142	\$610,029	\$746,793	\$844,640	\$3,043,232
Existing Affordable Multifamily Buildings							
Incentives & Services							
Program Implementation							
Total Budget							
Affordable New Construction							
Incentives & Services	\$2,853	\$20,677	\$30,201	\$38,938	\$47,668	\$53,913	\$194,249
Program Implementation							
Total Budget	\$2,853	\$20,677	\$30,201	\$38,938	\$47,668	\$53,913	\$194,249
Customer Awareness, Outreach &							
Engagement							
Incentives & Services		\$61,476					\$61,476
Program Implementation							
Total Budget		\$61,476					\$61,476
Portfolio Administration	\$5,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$105,000
Portfolio EM&V		\$11,909	\$15,388	\$19,846	\$24,301	\$27,488	\$98,932
Total Portfolio Budget	\$52,543	\$438,000	\$538,730	\$688,814	\$838,761	\$946,041	\$3,502,890

Electric Target Distribution (MWh)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	30	212	290	375	460	520	1,887
Existing Affordable Multifamily							
Buildings							
Affordable New Construction							
Customer Awareness, Outreach		717					717
& Engagement							
Total	30	929	290	375	460	520	2,604

Gas Target Distribution (Dth)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	418	2,455	4,052	5,257	6,470	7,350	26,003
Existing Affordable Multifamily							-
Buildings							
Affordable New Construction							-
Customer Awareness, Outreach		6,425					6,425
& Engagement							
Total	418	8,880	4,052	5,257	6,470	7,350	32,428

B.10 Rochester Gas & Electric

Electric Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$31,603	\$105,343	\$160,051	\$235,463	\$327,869	\$393,284	\$1,253,613
Program Implementation	\$131	\$1,339	\$2,926	\$5,889	\$20,719	\$28,348	\$59,352
Total Budget	\$31,734	\$106,682	\$162,978	\$241,352	\$348,588	\$421,632	\$1,312,965
Existing Affordable Multifamily							
Buildings							
Incentives & Services	\$18,473	\$74,866	\$77,703	\$80,662	\$83,744	\$86,928	\$422,377
Program Implementation	\$860	\$10,535	\$15,718	\$22,302	\$58,451	\$69,157	\$177,023
Total Budget	\$19,333	\$85,401	\$93,422	\$102,964	\$142,195	\$156,085	\$599,399
Affordable New Construction							
Incentives & Services		\$84,042	\$134,467	\$218,509	\$314,316	\$405,082	\$1,156,415
Program Implementation		\$1,266	\$2,915	\$6,479	\$23,545	\$34,613	\$68,818
Total Budget		\$85,308	\$137,382	\$224,987	\$337,862	\$439,695	\$1,225,233
Customer Awareness, Outreach &							
Engagement							
Incentives & Services		\$146,150	\$146,150	\$146,150			\$438,450
Program Implementation		\$19,862	\$28,581	\$39,096			\$87,540
Total Budget		\$166,012	\$174,731	\$185,246			\$525,990
Portfolio Administration	\$198	\$6,600	\$10,028	\$14,753	\$20,543	\$26,424	\$78,547
Portfolio EM&V	\$297	\$9,901	\$15,042	\$22,130	\$30,815	\$39,636	\$117,820
Total Portfolio Budget	\$51,562	\$459,904	\$593,583	\$791,433	\$880,002	\$1,083,471	\$3,859,954

Gas Budget Distribution							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	\$160,869	\$536,232	\$814,714	\$1,198,585	\$1,668,964	\$2,001,948	\$6,381,312
Program Implementation	\$18,455	\$24,202	\$46,195	\$80,705	\$154,371	\$189,337	\$513,265
Total Budget	\$179,325	\$560,434	\$860,909	\$1,279,290	\$1,823,335	\$2,191,285	\$6,894,577
Existing Affordable Multifamily							
Buildings							
Incentives & Services	\$4,299	\$87,608	\$93,184	\$98,823	\$104,496	\$110,218	\$498,626
Program Implementation	\$4,646	\$24,390	\$32,576	\$41,014	\$59,565	\$64,240	\$226,432
Total Budget	\$8,945	\$111,998	\$125,759	\$139,837	\$164,061	\$174,457	\$725,058
Affordable New Construction							
Incentives & Services		\$56,028	\$89,645	\$145,672	\$209,544	\$270,054	\$770,944
Program Implementation		\$3,357	\$6,748	\$13,022	\$25,732	\$33,909	\$82,770
Total Budget		\$59,385	\$96,393	\$158,695	\$235,277	\$303,964	\$853,713
Customer Awareness, Outreach &							
Engagement							
Incentives & Services		\$36,850	\$36,850	\$36,850			\$110,550
Program Implementation		\$25,055	\$31,477	\$37,379			\$93,911
Total Budget		\$61,905	\$68,327	\$74,229			\$204,461
Portfolio Administration	\$4,620	\$15,401	\$23,399	\$34,424	\$47,934	\$57,497	\$183,275
Portfolio EM&V	\$6,930	\$23,101	\$35,099	\$51,636	\$71,901	\$86,246	\$274,913
Total Portfolio Budget	\$199,820	\$832,224	\$1,209,886	\$1,738,112	\$2,342,506	\$2,813,449	\$9,135,997

Electric Target Distribution (MWh)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	35	117	178	262	365	438	1,395
Existing Affordable Multifamily	231	922	956	992	1,029	1,067	5,198
Buildings							
Affordable New Construction		111	177	288	415	534	1,525
Customer Awareness, Outreach		1,739	1,739	1,739			5,217
& Engagement							
Total	266	2,889	3,051	3,281	1,808	2,039	13,335

Gas Target Distribution (Dth)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	1,225	4,083	6,203	9,126	12,707	15,243	48,586
Existing Affordable Multifamily	308	4,115	4,374	4,638	4,903	5,172	23,510
Buildings							
Affordable New Construction		566	906	1,473	2,118	2,730	7,793
Customer Awareness, Outreach		4,227	4,227	4,227			12,680
& Engagement							
Total	1,533	12,990	15,710	19,463	19,729	23,144	92,569

Appendix C: Budgets, Targets, and Metrics by Sector

C.1 Existing 1-4 Family Homes

Metric	2020	2021	2022	2023	2024	2025	2026	Total
Total Budget Spend (\$000)	\$24,859	\$39,717	\$47,422	\$50,292	\$53,939	\$59,208	\$10,827	\$286,264
MWh Annual	3,703	6,118	7,696	8,729	10,044	11,568	1,356	49,213
MWH Lifetime	55,085	75,005	94,891	108,988	126,632	147,207	15,858	623,667
MMBtu Annual	166,063	250,123	304,465	322,862	355,156	393,976	40,122	1,832,767
MMBtu Lifetime	2,947,092	4,893,071	5,935,454	6,227,145	6,780,612	7,442,320	791,399	35,017,093
CO2e Emission Reduction	10,681	16,358	20,036	21,531	23,905	26,732	2,811	122,054
(metric tons) Annual								
CO2e Emission Reduction	184,230	270,924	330,335	354,711	393,134	438,014	42,167	2,013,515
(metric tons) Lifetime								
Participant Bill Savings	\$1,359	\$2,145	\$2,597	\$2,710	\$2,945	\$3,249	\$383	\$15,388
Annual (\$000)								
Participant Bill Savings	\$22,724	\$40,585	\$49,094	\$50,678	\$54,504	\$59,428	\$7,560	\$284,573
Lifetime (\$000)								
Participants	8,270	12,963	15,645	17,064	19,118	21,563	2,577	97,200
Leveraged Funds (\$000)	\$3,753	\$5,579	\$5,894	\$7,118	\$8,219	\$8,994	\$1,433	\$40,989

C.2 Existing Affordable Multifamily Buildings

Metric	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Total Budget Spend	\$8,681	\$22,418	\$33,283	\$50,337	\$74,497	\$90,097	\$22,991	\$19,195	\$16,575	\$3,603	\$341,677
MWh Annual	6,519	19,454	24,929	44,347	52,412	59,167	14,116	11,156			232,100
MWH Lifetime	49,148	285,374	356,928	697,784	812,480	878,011	282,330	223,116			3,585,172
MMBtu Annual	40,213	632,254	675,645	918,068	1,041,280	1,148,347	196,208	154,504			4,806,520
MMBtu Lifetime	593,653	11,852,200	12,459,776	16,975,924	19,112,824	20,762,611	3,924,156	3,090,080			88,771,224
CO2e Emission	5,399	43,344	48,391	70,993	81,578	90,650	17,493	13,795			371,643
Reduction (metric tons) Annual											
CO2e Emission	56,149	772,852	840,951	1,251,569	1,422,553	1,543,043	349,866	275,900			6,512,883
Reduction (metric tons) Lifetime											
Participant Bill	\$334	\$3,909	\$4,319	\$5,860	\$6,751	\$7,632	\$1,085	\$854			\$30,745
Savings Annual											
Participant Bill	\$4,920	\$71,512	\$77,532	\$105,580	\$120,680	\$134,196	\$21,699	\$17,087			\$553,206
Savings Lifetime											
Participants	1,360	2,973	6,926	20,918	27,719	33,637					93,533
Leveraged Funds (\$000)	\$3,169	\$29,620	\$39,220	\$98,120	\$124,881	\$135,263	\$70,148	\$50,542			\$550,963

C.3 Affordable New Construction

Metric	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Total Budget Spend	\$10,847	\$16,050	\$13,155	\$19,893	\$20,593	\$21,057	\$12,488	\$6,218	\$2,340	\$122,641
(\$000)										
MWh Annual	8,446	16,032	23,640	22,937	23,472	23,767	14,757	7,348		140,398
MWH Lifetime	168,916	320,642	472,799	458,739	469,431	475,335	295,139	146,952		2,807,953
MMBtu Annual	79,255	148,904	219,185	211,184	214,578	215,824	138,238	68,830		1,295,999
	1,584,942	2,977,929	4,383,707	4,223,688	4,291,564	4,316,478	2,764,756	1,376,598		
MMBtu Lifetime										25,919,662
CO2e Emission	8,439	15,937	23,479	22,702	23,150	23,364	14,732	7,335		139,140
Reduction (metric										
tons) Annual										
CO2e Emission	168,768	318,731	469,590	454,049	463,007	467,285	294,639	146,704		2,782,773
Reduction (metric										
tons) Lifetime										
Participant Bill	\$758	\$1,419	\$2,088	\$2,006	\$2,032	\$2,038	\$1,323	\$658		\$12,323
Savings Annual										
(\$000)										
Participant Bill	\$15,162	\$28,379	\$41,763	\$40,123	\$40,648	\$40,769	\$26,450	\$13,170		\$246,464
Savings Lifetime										
(\$000)										
Participants	13,560	10,914	16,457	16,742	16,858	10,742	5,349	2,013		101,965
Leveraged Funds	\$43,720	\$62,942	\$50,183	\$75,561	\$76,211	\$76,113	\$50,335	\$25,062		\$469,558
(\$000)										

C.4 Customer Awareness, Outreach, and Engagement

Metric	2020	2021	2022	2023	2024	2025	2026	Total
Total Budget Spend	\$3,652	\$9,908	\$10,252	\$10,384	\$10,077	\$10,191	\$600	\$55,063
(\$000)								
MWh Annual	24,630	7,716	7,005	7,013	3,770	3,782		53,916
MWH Lifetime	173,736	94,466	85,363	85,464	47,532	47,695		534,256
MMBtu Annual	13,229	25,642	19,549	19,832	16,485	16,924		111,661
MMBtu Lifetime	82,834	255,862	194,934	197,756	164,241	168,632		1,064,259
CO2e Emission Reduction (metric tons) Annual	13,026	5,224	4,544	4,563	2,762	2,792		32,911
CO2e Emission Reduction (metric tons) Lifetime	91,326	61,082	53,328	53,569	32,862	33,236		325,403
Participant Bill Savings Annual (\$000)	\$142	\$222	\$162	\$165	\$149	\$154		\$994
Participant Bill Savings Lifetime (\$000)	\$892	\$2,214	\$1,623	\$1,654	\$1,485	\$1,533		\$9,402
Participants Leveraged Funds	498,615	82,721	74,654	75,395	61,415	62,654		855,454

C.5 Pilots and Demonstrations

Metric	2020	2021	2022	2023	2024	2025	2026	2027	Total
Total Budget Spend (\$000)	\$200	\$544	\$550	\$550	\$400	\$200	\$-	\$-	\$2,444
MWh Annual			11	55	55	55	55	44	277
MWH Lifetime			166	832	832	832	832	665	4,159
MMBtu Annual			397	1,984	1,984	1,984	1,984	1,587	9,920
MMBtu Lifetime			5,952	29,759	29,759	29,759	29,759	23,807	148,793
CO2e Emission Reduction			27	133	133	133	133	107	666
(metric tons) Annual CO2e Emission Reduction			400	1,998	1,998	1,998	1,998	1,599	9,991
(metric tons) Lifetime Participant Bill Savings Annual (\$000)			\$4	\$19	\$19	\$19	\$19	\$15	\$95
Participant Bill Savings Lifetime (\$000)			\$57	\$284	\$284	\$284	\$284	\$227	\$1,422
Participants Leveraged Funds	-	20	99	99	99	99	79	-	494

C. 6 NYS Healthy Homes VBP Pilot⁸²

Metric	2020	2021	2022	2023	2024	2025	Total
Total Budget Spend	\$700,000	\$5,686,011	\$400,000				\$6,786,011
MWh Annual	30	240	30				300
MWH Lifetime	450	3,600	450				4,500
MMBtu Annual	1,000	8,000	1,000				10,000
MMBtu Lifetime	15,000	120,000	15,000				150,000
CO2e Emission Reduction (metric tons) Annual	68	545	68				682
CO2e Emission Reduction (metric tons) Lifetime	1,023	8,180	1,023				10,226
Participant Bill Savings Annual	\$9,555	\$76,438	\$9,555				\$95,547
Participant Bill Savings Lifetime	\$143,321	\$1,146,569	\$143,321				\$1,433,211
Participants	50	400	50				500
Leveraged Funds							

C.7 Beneficial Electrification⁸³

Metric	2020	2021	2022	2023	2024	2025	Total
Total Budget Spend							
MWh Annual							
MWH Lifetime							
MMBtu Annual							
MMBtu Lifetime							
CO2e Emission Reduction (metric tons) Annual							
CO2e Emission Reduction (metric tons) Lifetime							
Participant Bill Savings Annual							
Participant Bill Savings Lifetime							
Participants							
Leveraged Funds							

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⁸² The total budget for the NYS Health Homes VBP Pilot \$9,813,654, however \$6,786,011 is uncommitted in the CEF LMI Chapter and is being carried forward into the LMI Portfolio Implementation Plan.

⁸³ At the time of this filing, the Beneficial Electrification activities are currently being planned. Projected savings, participants, leveraged funds, and participant bill savings will be incorporated in an updated filing of the Implementation Plan.

C.8 LMI Solar⁸⁴

Metric	2020	2021	2022	2023	2024	2025	Total
Total Budget Spend	\$4,221,633	\$4,181,604	\$100,000	\$90,000	\$65,000	\$65,000	\$8,723,237
MWh Annual							
MWH Lifetime							
MMBtu Annual							
MMBtu Lifetime							
CO2e Emission Reduction (metric tons) Annual							
CO2e Emission Reduction (metric tons) Lifetime							
Participant Bill Savings Annual							
Participant Bill Savings Lifetime							
Participants	4,000	3,359					
Leveraged Funds							

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⁸⁴ The total budget for Solar for All is \$21,245,000, however \$8,723,237 is uncommitted in the CEF LMI Chapter and is being carried forward into the LMI Portfolio Implementation Plan. Metrics for LMI Solar are included and reported through NY Sun.

Appendix D: LMI Portfolio Performance Metrics Tracking Mechanisms

The below table indicates how the Performance Metrics in Section 2.5 will be assessed.

Performance Metrics Tracking	Relevant Performance Metrics
Mechanism	
Utilize quarterly portfolio performance metrics to assess performance	 MWh annual/lifetime savings achievements MMBtu annual/lifetime savings achievements CO2e Emission Reduction (metric tons) annual/lifetime achievements Number of participants served Participant bill savings annual/lifetime achievements Budget spent
Collaboration on data collection tools and practices with potential for additional portfolio level market research.	 Percentage of participants that learn about portfolio initiatives from various sources (e.g., Customer Hub, Utility or NYSERDA outreach materials, contractors, etc.) Participation satisfaction rating
Analyze administrative costs through LMI Portfolio BCA	Administrative cost associated with statewide approach
Track savings acquired that were related to a comprehensive project.	 Energy savings acquired from comprehensive projects

Appendix E: Preliminary BCA Results by Program Administrator

The table below lists the benefits and costs considered in calculating benefit/cost ratios for the LMI Portfolio.

Туре	Component
	Measure equipment and installation (labor) costs
Costs	Program administrator costs (program administration, including marketing, implementation contractor and EM&V)
	Avoided energy costs
	Deferred capacity costs (generation, transmission and
Benefits	distribution)
	Reduced CO ² emissions
	Avoided water costs

The following tables report preliminary BCA results by Program Administrator.

E.1 Central Hudson

		SCT		UCT			
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio	
2020	\$342,060	\$124,973	2.74	\$304,498	\$136,450	2.23	
2021	\$503,476	\$270,862	1.86	\$449,347	\$281,636	1.60	
2022	\$603,975	\$383,042	1.58	\$539,249	\$383,042	1.41	
2023	\$702,647	\$460,124	1.53	\$627,405	\$460,124	1.36	
2024	\$654,433	\$545,032	1.20	\$586,854	\$545,032	1.08	
2025	\$818,012	\$660,432	1.24	\$732,806	\$660,432	1.11	

E.2 Con Edison

		SCT	UCT			
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio
2020	\$12,932,758	\$13,924,406	0.93	\$11,085,656	\$10,763,067	1.03
2021	\$14,996,540	\$22,653,142	0.66	\$13,559,180	\$17,760,707	0.76
2022	\$18,605,110	\$27,938,340	0.67	\$16,810,433	\$21,833,935	0.77
2023	\$22,911,563	\$34,050,624	0.67	\$20,685,733	\$26,561,414	0.78
2024	\$26,824,632	\$39,327,075	0.68	\$24,197,006	\$30,661,329	0.79
2025	\$32,843,443	\$47,473,230	0.69	\$29,599,075	\$36,994,050	0.80

E.3 KEDLI

		SCT	UCT			
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio
2020	\$435,788	\$523,851	0.83	\$404,131	\$523,851	0.77
2021	\$2,882,918	\$3,297,372	0.87	\$2,673,660	\$3,297,372	0.81
2022	\$3,466,611	\$3,823,449	0.91	\$3,214,956	\$3,823,449	0.84
2023	\$3,992,138	\$4,275,299	0.93	\$3,702,162	\$4,275,299	0.87
2024	\$4,665,849	\$4,863,144	0.96	\$4,326,686	\$4,863,144	0.89
2025	\$5,329,585	\$5,439,271	0.98	\$4,941,705	\$5,439,271	0.91

E.4 KEDNY

		SCT	UCT			
	Benefits	Costs	Benefit Cost	Benefits	Costs	Benefit Cost
			Ratio			Ratio
2020	\$1,070,292	\$1,225,150	0.87	\$993,185	\$1,225,150	0.81
2021	\$1,657,923	\$1,858,186	0.89	\$1,538,357	\$1,858,186	0.83
2022	\$2,482,806	\$2,737,171	0.91	\$2,303,519	\$2,737,171	0.84
2023	\$3,878,266	\$4,203,497	0.92	\$3,597,824	\$4,203,497	0.86
2024	\$5,096,635	\$5,466,116	0.93	\$4,727,548	\$5,466,116	0.86
2025	\$6,472,878	\$6,851,815	0.94	\$6,003,392	\$6,851,815	0.88

E.5 National Fuel Gas

	SCT			UCT		
	Benefits	Costs	Benefit	Benefits	Costs	Benefit
			Cost			Cost
			Ratio			Ratio
2020	\$3,365,357	\$4,617,501	0.73	\$3,118,314	\$4,617,343	0.68
2021	\$3,710,878	\$4,984,309	0.74	\$3,437,967	\$4,984,134	0.69
2022	\$4,088,137	\$5,426,547	0.75	\$3,786,718	\$5,426,350	0.70
2023	\$4,056,866	\$5,327,504	0.76	\$3,756,926	\$5,327,304	0.71
2024	\$4,166,337	\$5,420,421	0.77	\$3,857,390	\$5,420,212	0.71
2025	\$4,312,594	\$5,564,419	0.78	\$3,991,772	\$5,564,198	0.72

E.6 New York State Energy Research & Development Authority

		SCT	UCT			
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio
2020	\$109,010,320	\$230,481,124	0.47	\$99,151,749	\$80,130,927	1.24
2021	\$188,707,744	\$313,649,610	0.60	\$171,898,249	\$108,800,316	1.58
2022	\$137,939,285	\$221,050,368	0.62	\$125,752,550	\$83,690,375	1.50
2023	\$130,319,330	\$203,802,114	0.64	\$118,708,476	\$75,656,830	1.57
2024	\$129,429,733	\$198,464,790	0.65	\$117,819,599	\$74,623,472	1.58
2025	\$122,182,704	\$176,411,292	0.69	\$111,137,246	\$66,362,918	1.67

E.7 New York State Gas & Electric

	SCT			UCT			
	Benefits	Costs	Benefit	Benefits	Costs	Benefit	
			Cost			Cost	
			Ratio			Ratio	
2020	\$329,901	\$508,128	0.65	\$295,539	\$429,049	0.69	
2021	\$2,816,202	\$2,518,642	1.12	\$2,492,636	\$2,223,323	1.12	
2022	\$3,365,211	\$3,425,424	0.98	\$2,991,057	\$2,980,505	1.00	
2023	\$4,249,699	\$4,864,209	0.87	\$3,794,160	\$4,184,238	0.91	
2024	\$4,547,051	\$6,114,880	0.74	\$4,099,865	\$5,198,516	0.79	
2025	\$5,357,577	\$7,296,275	0.73	\$4,833,130	\$6,191,151	0.78	

E.8 Niagara Mohawk

	SCT			UCT		
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio
2020	\$1,479,962	\$1,913,063	0.77	\$1,308,907	\$1,913,063	0.68
2021	\$639,224	\$1,499,036	0.43	\$585,991	\$1,499,036	0.39
2022	\$1,119,878	\$2,562,650	0.44	\$1,026,245	\$2,562,650	0.40
2023	\$1,897,289	\$4,257,396	0.45	\$1,737,857	\$4,257,396	0.41
2024	\$2,629,029	\$5,788,132	0.45	\$2,406,922	\$5,788,132	0.42
2025	\$3,583,188	\$7,724,160	0.46	\$3,278,692	\$7,724,160	0.42

E.9 Orange & Rockland

		SCT			UCT		
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio	
2020	\$64,752	\$71,089	0.91	\$59,050	\$71,089	0.83	
2021	\$992,459	\$686,525	1.45	\$891,004	\$686,525	1.30	
2022	\$577,723	\$599,089	0.96	\$526,118	\$599,089	0.88	
2023	\$718,364	\$725,461	0.99	\$653,711	\$725,461	0.90	
2024	\$845,348	\$833,058	1.01	\$768,665	\$833,058	0.92	
2025	\$918,144	\$883,370	1.04	\$834,165	\$883,370	0.94	

E.10 Rochester Gas & Electric

	SCT			UCT		
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio
2020	\$197,880	\$317,696	0.62	\$175,133	\$243,541	0.72
2021	\$1,928,764	\$1,607,192	1.20	\$1,694,806	\$1,325,394	1.28
2022	\$2,151,485	\$2,048,761	1.05	\$1,896,765	\$1,659,235	1.14
2023	\$2,458,490	\$2,639,143	0.93	\$2,175,006	\$2,109,066	1.03
2024	\$2,013,718	\$3,031,112	0.66	\$1,811,379	\$2,350,288	0.77
2025	\$2,252,318	\$3,405,799	0.66	\$2,026,166	\$2,641,263	0.77