Statewide Low- to Moderate-Income Portfolio Implementation Plan

Version 2

Jointly Filed By:

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Pursuant to New York Public Service Commission Order Adopting Accelerated Energy Efficiency Targets and Order Authorizing Utility Energy Efficiency and Building

Electrification Portfolios Through 2025

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Version History and Description of Revisions: New York LMI Portfolio Implementation Plan

Date Filed	Version	Торіс	Description of Change	Section/ Page in Implementation Plan
7/24/2020	1	Not applicable (NA) as first Implementation Plan	NA	NA
4/29/2022	2	New York policy context for LMI Portfolio	Updates to policy context in New York for LMI Portfolio, including regarding Disadvantaged Communities, the Two Million Homes Action Plan	Throughout Implementation Plan
4/29/2022	2	Achievements since 2020 Implementation Plan	Describes key achievements in advancing Statewide LMI Portfolio since 2020 Implementation Plan	Executive Summary, Throughout Implementation Plan
4/29/2022	2	Coordination Points	Updates on addressing key Coordination Points (data sharing between the Utilities and NYSERDA; Evaluation, Measurement, and Verification; Implementation Contractor procurement; Marketing; and Statewide Application	Section 2.3.1, Throughout Implementation Plan
4/29/2022	2	LMI Joint Management Committee and Executive Council	Update to Joint Management Committee Process, including establishment of LMI JMC Executive Council	Sections 2.4.2, 2.4.2
4/29/2022	2	Stakeholder Engagement	Updated description of Portfolio stakeholder engagement activities	Section 2.4.3, Throughout Implementation Plan
4/29/2022	2	Performance Metrics	Updated information on performance metrics, including status of providing data	Section 2.5, Throughout Implementation Plan
4/29/2022	2	Eligibility Criteria	Update of Portfolio Eligibility Criteria, including geographic eligibility	Section 2.6, Throughout Implementation Plan
4/29/2022	2	Budget and Target Updates	Updates to Budgets and Targets, including (1) to reflect	Section 3, Throughout

			performance since 2020 Implementation Plan; (2) key drivers of cost trends; (3) identification of costs efficiencies achieved and being pursued; (4) updated Portfolio and Program Administrator budgets and target information	Implementation Plan, Appendices A-D
4/29/2022	2	1-4 Family Homes Initiatives	Updates include: planning to combine EmPower NY Low- income program and Assisted Home Performance with Energy Star moderate-income program into EmPower+ Program, to be launched in 2023; changes to programs including streamlined EmPower application; coordination between NYSERDA and the Utilities, including data sharing and referrals	
4/29/2022	2	Milestones	Updated current and future milestones for the Portfolio and new appendix mapping 2020 and 2022 Implementation Plan milestones	Sections 4-8, Appendix F.
4/29/2022	2	Existing Affordable Multifamily Buildings	Updates include: development and launch of new statewide Affordable Multifamily Energy Efficiency Program (AMEEP) with focus on comprehensive measures and projects; transition of prior Program Administrator multifamily programs to AMEEP	Section 4.2.1
4/29/2022	2	Technical Assistance for Affordable Multifamily Buildings	Updates on NYSERDA FlexTech program, including integration into AMEEP	Section 4.2.2
4/29/2022	2	Template Presentation for Sections	Numerous sections have been reformatted to follow a consistent template	Sections 4.6., 5.1, 5.2, 5.3, 8.
4/29/2022	2	RetrofitNY	Updates include added description and detail on program to advance deep energy retrofits	Section 4.2.3
4/29/2022	2	Affordable New Construction	Updates include added description and detail on	Section 4.3

			NYSERDA affordable new	
			construction initiatives	
4/29/2022	2	Pilots and Demonstrations	Updates include added description and detail regarding NYSERDA LMI pilots and demonstrations	Section 4.4
4/29/2022	2	Beneficial Electrification	Added description and detail regarding pilots, research, and other work to advance the inclusion of heat pump and other beneficial electrification measures in affordable multifamily buildings	Section 4.5
4/29/2022	2	Additional LMI Initiatives	Updates including added description and detail on the New York State Healthy Homes Value-Based Payment Pilot	Section 4.6
4/29/2022	2	Customer Awareness, Outreach & Engagement	Section 5. Customer Awareness, Outreach & Engagement has been restructured for consistency and clarity	Section 5
4/29/2022	2	LMI Portfolio Marketing	Additional information on LMI Portfolio marketing efforts including: statewide branding, the NY Energy advisor website; hard copy customer education collateral and multilingual communications; community based marketing and paid advertising	Section 5.1
4/29/2022	2	Community-Based Outreach and Education	Information and detail on shift in NYSERDA programs from Community Energy Engagement Program (CEEP) to Regional Clean Energy Hubs	Section 5.2
4/29/2022	2	Community Based Customer Engagement	Updated information on: Utility partnerships with LMI community organizations focusing on measure distribution and education; and neighborhood engagement initiatives	Section 5.3
4/29/2022	2	Coordination with External Program Administrators and Other Organizations	Title change to indicate coordination with organizations other than external program administrators; inclusion of Long Island Power Authority	Section 6

4/29/2022	2	Benefit Cost Analysis	Description and results of revised Benefit Cost Analysis for LMI	Section 7, Appendix E
4/29/2022	2	Evaluation, Measurement, and Verification (EM&V)	Portfolio Description of EM&V activities since 2020 Implementation Plan, including development initial and revised Verified Gross Savings Specifications; added description on EM&V activity related to assessment of performance metrics	Section 8
5/31/2022	2	Budget and Target Updates	Updates to Budgets and Targets, including restated Portfolio and Program Administrator budgets and target information for 2020 and 2021, and updated projections for 2022-2025	Section 3, Throughout Implementation Plan, Appendices A-D

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 updated 2022 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 holistic and coordinated approach to deliver energy efficiency to LMI customers and communities in New York and also to: (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.

This Plan represents the first update to the initial Implementation Plan for the Statewide LMI Portfolio, which was filed in July 2020 ("2020 Implementation Plan" or "2020 Plan").² This Plan generally reflects the same broader context, goals, and approaches that informed and comprised the 2020 Plan, and provides updates describing progress on numerous elements of the 2020 Plan since its filing (*i.e.*, through April 2022), as well as modifications to the 2020 Plan. This Plan also describes the current state of the Portfolio's development and implementation and provides revised next steps, plans, and milestones going forward.

Implementation Plan Context and Goals

The goal of this Plan is to advance energy affordability and access to energy efficiency for New York's LMI residents and communities, while supporting New York State's nationleading climate policy to transition to carbon-free electricity systems and dramatically reduce greenhouse gas emissions. The Plan contributes to achieving key goals from the Climate Leadership and Community Protection Act³ ("Climate Act"), including the requirement that disadvantaged communities receive no less than 35% (with a goal of 40%) of the overall benefits of spending on clean energy programs, by focusing on the equity issues that can be most directly addressed by clean energy programs, such as

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"), NMPC Power Corporation d/b/a National Grid ("NMPC")(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").

² Case 18-M-0084, *In the Matter of a Comprehensive Energy Efficiency Initiative* ("NE: NY Proceeding"), Statewide Low- to Moderate-Income Portfolio Implementation Plan (filed July 24, 2020). This Plan supersedes previous version, *i.e.*, the 2020 Plan.

³ Chapter 106 of the Laws of 2019. The Climate Act is available at <u>https://legislation.nysenate.gov/pdf/bills/2019/S6599</u>.

energy affordability, reduced fossil fuel combustion to advance environmental justice, and enhanced community engagement. The Statewide LMI Portfolio will also advance Governor Hochul's 2022 State of the State commitment to the Two Million Homes Action Plan to achieve two million climate-friendly homes -- one million efficient and electrified homes and one million electrification-ready homes -- by 2030, with at least 800,000 of the homes being LMI households ("Two Million Homes Action Plan").⁴ The initiative calls on NYSERDA, New York State Homes and Community Renewal ("NYS HCR"), New York State Department of Public Service ("DPS"), and Department of State to produce an executable plan and funding proposal by end of 2022 to guide achievement of this goal.

This Implementation Plan includes a budget of \$959.8 million in new funding allocations across all of the Program Administrators from 2020-2025, with estimated lifetime electric savings of 10,062,672 megawatt hours ("MWh"), gas savings of 245,026,687 million British Thermal Units ("MMBtu"), and greenhouse gas emissions reductions of 19,900,452 carbon dioxide equivalent ("CO2e") metric tons, while serving an estimated 1.7 million participants.⁵ The Plan is consistent with directives from the New York Public Service Commission ("Commission"), including the Accelerated Efficiency Order⁶ from December 2018 and the 2020 NE: NY Order⁷ from January 2020, which specify spending 20% of incremental energy efficiency funding on LMI customers with 40% of that spending allocated to affordable multifamily buildings.

The Plan also outlines major advances in the planning and delivery of energy efficiency initiatives for 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 a more consistent and accessible program framework whereby the Program Administrators jointly design, implement, maintain, and improve a single Statewide LMI Portfolio of programs. Benefits of this approach 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 also benefit from increased alignment of initiatives, incentive structures, marketing, and other Portfolio elements.

⁴ <u>Governor Hochul Announces Plan to Achieve 2 Million Climate-Friendly Homes by 2030 | Governor Kathy</u> <u>Hochul (ny.gov)</u>

⁵ Includes NYSERDA indirect savings.

⁶ NE: NY Proceeding, Order Authorizing Accelerated Energy Efficiency Targets (issued December 13, 2018) ("Accelerated Efficiency Order").

⁷ NE: NY Proceeding, Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios Through 2025 (issued January 16, 2020) ("2020 NE: NY Order").

To date, the Program Administrators have implemented some impactful and significant achievements under the Portfolio framework. These achievements include:

- Designing and launching of the statewide Utility-administered Affordable Multifamily Energy Efficiency Program ("AMEEP") on November 3, 2021, concurrent and coordinated with the phase out of NYSERDA's Multifamily Performance Program ("MPP");
- Developing and launching transformative partnerships between NYSERDA and affordable housing agencies to integrate technical assistance and efficiency and electrification incentive funding directly into affordable housing finance applications with NYS HCR and New York City Department of Housing Preservation and Development ("NYC HPD"), positioning the housing agencies to require high-performance all-electric design for affordable housing new construction and preservation projects ahead of anticipated mandates and regulatory requirements;
- Launching the Clean Heat for All Challenge, a partnership between NYSERDA, New York City Housing Authority ("NYCHA") and New York Power Authority ("NYPA") to spur heating and cooling equipment manufacturers to develop a packaged, window-mounted cold climate heat pump that can be easily installed and maintained, providing efficient, reliable heating and cooling to NYCHA residents (the partnership leverages Regional Greenhouse Gas Initiative ("RGGI") funding and technical assistance from NYSERDA, NYCHA's portfolio size and commitment to electrification, and NYPA's procurement vehicle and project management);
- Selecting the first round of partners, including two affordable housing developers, under the Empire Building Challenge demonstration program and completing analyses to map out high-efficiency electrification retrofit strategies for high-rise multifamily buildings;
- Developing a combined application for 1-4 Family LMI programs and creating an online version, which includes geographic eligibility for households in low-income census tracts;
- Improving the low-income referral process, increasing awareness of and participation in cost-saving energy programs;
- Developing and launching the NY Energy Advisor for Income Eligible Energy Efficiency Programs website ("NY Energy Advisor")⁸, a one-stop centralized customer-awareness website providing information on statewide energy efficiency and clean energy offerings and connecting eligible New Yorkers to energy programs, resources and assistance;
- Allocating \$10 million through NYSERDA's Heat Pump Demonstration Study pilot to fund electrification as part of comprehensive energy efficiency upgrades for

⁸ <u>https://energyadvisor.ny.gov/</u>

LMI households and affordable multifamily buildings and assess real-world barriers and solutions to make heat pumps more accessible and affordable for LMI customers;

- Developing and executing agreements with NYSERDA to administer funding through NYSERDA's EmPower New York program ("EmPower NY" or "EmPower") and to develop and implement the NY Energy Advisor website;
- Engaging with stakeholders through biannual statewide LMI Portfolio webinars, completing co-design phase of Regional Clean Energy Hubs initiative, as well as periodic meetings with multifamily stakeholders and the Strategic Advisory Group ("SAG"), a stakeholder group convened by the DPS Staff ("Staff") as part of its Performance Management and Improvement Process ("PM&IP") regarding the Statewide LMI portfolio⁹;
- Developing and filing the Statewide LMI Joint Management Committee (the "JMC" or the "Committee") Manual ("JMC Manual"), which describes the forum of the Program Administrators to meet, discuss, implement, and calibrate the execution of the Implementation Plan, as well as the establishment of a new LMI JMC Executive Council ("Executive Council") that provides oversight and guidance to the JMC (filed December 22, 2021);¹⁰
- Ongoing coordination around Evaluation, Measurement, and Verification
 ("EM&V") issues for the Portfolio, including developing and filing the Statewide
 LMI Verified Gross Savings ("VGS") Specifications for the Statewide LMI Portfolio
 ("LMI VGS Specifications");¹¹ developing standardized survey questions for
 statewide use when conducting process evaluation research; identifying key
 measures for further research to develop statewide and regional average existing
 condition baselines; and
- Developing a framework for combining and streamlining the EmPower NY program with Assisted Home Performance with ENERGY STAR (R) ("AHP") into a single LMI program called EmPower+, informed by extensive stakeholder input, including releasing an RFP for program management software for EmPower+, with anticipated launch in 2023.

As is described herein, the Program Administrators will continue to identify, assess, and implement the steps necessary to complete this shift to a Statewide LMI Portfolio and achieve the associated benefits over the period of the Plan, which began in 2020 and continues through 2025. These efforts are coordinated under the LMI JMC and LMI

⁹ See, NE: NY Proceeding, Commencement of Energy Efficiency & Building Electrification Performance Management & Improvement Process, (filed May 29, 2020.) See also, 2020 NE: NY Order, p. 60-61.
¹⁰ NE: NY Proceeding, "Statewide Low- to Moderate-Income Joint Management Committee Manual, Version 2" (Filed: December 22, 2021). The initial JMC Manual was filed on October 14, 2020.
¹¹ NE: NY Proceeding, Consolidated LMI Verified Gross Savings Specifications (filed Dec. 14, 2020). Revised VGS Specifications are to be filed in Q2 2022. Executive Council,¹² and reflect ongoing engagement with and input from stakeholders, including members of the public, affordability advocates, and service providers. Given the breadth and rigor associated with implementing all aspects of the LMI Portfolio, the JMC will work with the Executive Council and stakeholders to align on top priorities for the period ahead. These may include: 1) ensuring achievement of LMI Portfolio targets, including addressing and resolving target shortfalls, 2) assessing, identifying, and implementing LMI program design changes and integrating with the New York State Clean Heat Program ("NYS Clean Heat") to increase gas efficiency savings and incorporate electrification incentives, with appropriate affordability protections, and 3) managing and optimizing overall effectiveness at reaching and serving more LMI customers through multi-pronged efforts to actively engage stakeholders and implement feedback, continuously improve EmPower NY referrals, the NY Energy Advisor website and awareness campaign, and increase outreach through the forthcoming Regional Clean Energy Hubs and utility outreach partnerships.

The design, development, and implementation of new statewide programs in 2020-2021 has allowed the Program Administrators to reflect on lessons learned throughout the process that can be applied going forward in the continued implementation and operation of the Statewide LMI Portfolio. An example of this includes the importance of understanding the different challenges faced specific to certain regions of New York, and solving for them in the format of a statewide program. The JMC structure has allowed the Program Administrators to surface and address these issues in a holistic way. Additionally, the Program Administrators found feedback from stakeholders invaluable in designing the programs. As the Statewide LMI Portfolio continue to grow, and programs continue to be implemented and scaled, the JMC will continue to seek feedback from participants and other stakeholders to improve the programs, so that participation increases and as many LMI customers are comprehensively served as possible.

The Program Administrators look forward to the NE: NY Interim Review process, mandated by the 2020 NE: NY Order, which is to commence in 2022, with expected Commission action in 2023 to assess the LMI Portfolio and make adjustments as necessary.¹³ The Interim Review will assess program design and administration, innovative practices, governance and oversight mechanisms, and targets and budgets required to support the Climate Act and other State goals and efforts. The Program Administrators will work closely with DPS Staff and key stakeholders to support the Review and implement directives following a Commission Order.

¹² The Order Approving Clean Energy Fund Modifications ("CEF Modifications Order") issued September 9, 2021, ordered the formation of an Executive Level Council ("Executive Council") to provide oversight and guidance to the LMI JMC.

¹³ NE: NY Proceeding, 2020 NE: NY Order, p. 59-60.

Summary of Plan

The Plan is comprised of the following eight sections:

Section 1. Introduction describes the context for the Statewide LMI Portfolio and the breadth of the New York State policy landscape that this Plan is instrumental in advancing, including the Affordability Policy, the NYSERDA-administered Clean Energy Fund ("CEF")¹⁴, the Climate Act and the Two Million Homes Action Plan. Consistent with the Climate Act, the Plan reflects the importance of increasing access to clean energy and efficiency programs for disadvantaged communities ("DACs"), which the Act defines as "communities that bear burdens of negative public health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria, or comprise high-concentrations of low- and moderate-income households".¹⁵

Section 2. Statewide LMI Portfolio describes the overall approach to leverage the respective strengths of each of the Program Administrators in developing and implementing the Statewide 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 that will measure and assess the Portfolio. This section also describes the approach to implementing, updating, and reporting on the Portfolio, including outlining the core functions of the LMI JMC, the LMI Executive Council, and stakeholder engagement. In addition, Section 2 describes the approach to maintaining the Portfolio, recognizing program evolution from its Status Prior to New Statewide LMI Portfolio Offering, to a Transitional Phase, to Full Implementation of the statewide approach. Section 2 also provides updates regarding several complex coordination and administrative elements that were identified in the 2020 Plan after its filing as needing to be addressed to fully achieve that Plan's objectives. Finally, this section describes the eligibility thresholds for qualification in the Portfolio, including the assessment of innovative approaches.

<u>Section 3. Budgets, Targets, and Other Impacts</u> presents the Portfolio budgets and targets for 2020-2025, both by year and by Program Administrator. Portfolio-level performance metrics by year are also provided. These Portfolio-level performance metrics are quantified and reported quarterly and can be viewed on the Clean Energy Dashboard.¹⁶ Additional detail on budgets, targets, and metrics is provided in the appendices.

This Plan includes revisions to projected budgets and targets from the 2020 Plan based on updated information and analysis of the estimated costs of the statewide LMI

¹⁴ 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).

 $^{^{\}rm 15}$ 2019 Climate Leadership and Community Protection Act.

https://legislation.nysenate.gov/pdf/bills/2019/s6599

¹⁶ See, <u>https://rev.ny.gov/cleanenergydashboard</u>

initiatives. For several Program Administrators, the targets described in this Plan differ materially from those in the 2020 Plan and are currently projected to fall short by up to 5% relative to the Accelerated Efficiency Order and 2020 NE: NY Order.¹⁷ Section 3 summarizes key cost impacts which contribute to this including inflation and COVID-19-related supply chain issues, leading to discrepancies between Ordered and actual or projected program run rates.

In the administration of the Portfolio, the Program Administrators are preserving flexibility with annual budgets and production projections to provide for the ability to respond to increased demand and serve more households or buildings, as necessary. Where necessary and feasible (*i.e.*, given regulatory requirements), Program Administrators either have spent and/or will spend budgets from future years to meet program demand or have spent and/or will spend budgets from earlier years in later years for the same reason. Any such reallocations are reflected in this Implementation Plan, including in tables throughout the Plan.¹⁸

The Program Administrators remain committed to achieving cost efficiencies as the new initiatives being developed under the Portfolio reach maturity, and a wide array of options are being explored to achieve those goals, as described in <u>Section 4</u>. The Program Administrators will continue to assess actual cost data to project future budgets and targets as accurately as possible. The need to identify and achieve cost efficiencies and accurately project impact in service of increasing the impact of ratepayer investments and reaching more LMI customers with the benefits of energy efficiency further underscores the importance of the Program Administrators efficiently working together under the LMI JMC structure. Cost efficiencies identified and achieved or planned for by the Program Administrators are enumerated in Section 3 and discussed in detail throughout this Plan.

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

- Existing 1-4 Family Homes
- Existing Affordable Multifamily Buildings
- 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 budget. Approximately 30% of the total

¹⁷ NFGDC additional LIURP funding and associated targets removed from calculation.

¹⁸ See, NE: NY Proceeding, 2020 NE: NY Order, p. 69-70.

statewide Portfolio budget, including CEF investment, is allocated to Existing 1-4 Family Homes initiatives. 52% of the total Portfolio budget, including CEF investment, is allocated to Existing Affordable Multifamily initiatives. 66% of incremental Utility funding is allocated to Existing Affordable Multifamily initiatives as well.

Subsections for the Existing 1-4 Family Homes, Existing Affordable Multifamily Buildings, and Affordable New Construction sectors provide detail on the sector Initiatives and Services, Objectives, Status Prior to New Statewide LMI Portfolio Offering, Transitional Phase, and Full Implementation. These subsections also provide detail regarding the Target Market and Delivery Method, Eligible Measures and Incentive Structure, and Stakeholder/Market Engagement, which includes identifying Key Partners and Additional Considerations specific to that sector such as Additional Funding Sources, and outlines Implementation Milestones for the next several years under the Plan (*i.e.*, through 2024). This updated Plan provides significant new information for the multifamily initiatives and 1-4 Family Homes initiatives, reflecting significant assessment, stakeholder engagement, and redesign efforts from the Program Administrators since the filing of the 2020 Plan.

Pilots and demonstrations are a 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 continue to incorporate the piloting and demonstration of new technologies and approaches for serving LMI customers and communities. The Program Administrators 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 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 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.

<u>Section 5. Customer Awareness, Outreach & Engagement</u> describes how customer awareness and education initiatives play a crucial role in creating lasting effects from energy efficiency for LMI customers. The success of the Portfolio relies on meaningful engagement with customers, contractors, and community partners through an effective customer awareness, outreach, and engagement campaign.

Within this section, objectives related to Customer Awareness, Outreach & Engagement are identified. Through multiple delivery channels, the Program Administrators will continue to deliver initiatives that will address the overall strategic development and coordination of these efforts. The initiatives build on existing program experience and provide a comprehensive and integrated statewide approach that Program Administrators expect will include the following key elements:

- 1. <u>LMI Portfolio Marketing</u>, including:
- Statewide branding
- NY Energy Advisor providing online information about energy efficiency and clean energy as well as a one-stop shop to learn about and participate in the statewide Portfolio offerings
- Branded hard-copy program outreach and informational collateral to complement the online NY Energy Advisor website
- Delivery of community-based marketing and paid advertising
- 2. <u>Community-Based Outreach Education and Engagement Partnerships</u>
- Regional Clean Energy Hubs that serve as trusted local resources for community members to learn more about energy-related programs and services, and that foster development of outreach strategies to increase awareness and elevate the needs of communities and residents
- 3. <u>Community-Based Customer Engagement Initiatives</u>
- 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
- Neighborhood-based delivery model

This section describes several updates and modifications on these elements from the 2020 Plan.

Section 6. Coordination with External Program Administrators and Other Organizations reflects that, in addition to coordination amongst 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 synchronization, effectiveness, and overall impact for customers. Section 6 identifies these organizations and describes the nature of coordination with each, including through the LMI Joint Management Committee. Section 7. Benefit Cost Analysis presents the summary results of the updated Benefit Cost Analysis ("BCA") for the Statewide LMI Portfolio of initiatives, with additional detail provided in <u>Appendix E</u>. As noted in the 2020 Implementation Plan, the BCA results will continue to be refined as the Portfolio initiatives are further developed, and will be updated as future iterations of the Implementation Plan are filed. 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 that the Program Administrators take in estimating savings and evaluating LMI initiatives. This includes approaches to standardized statewide savings estimation, collaborative evaluation activities, and continuous monitoring of and feedback on performance metrics. Specific program-level savings estimation approaches and evaluation schedules are detailed in the VGS Specifications, which are filed along with this Plan. Section 8 provides a brief summary of these updated specifications.

1. Introduction

Pursuant to the 2020 NE: NY Order, NYSERDA and the New York Utilities (*i.e.*, the Program Administrators) jointly file this updated Implementation Plan describing the statewide¹⁹ portfolio of energy efficiency programs and initiatives for LMI customers and communities.²⁰ This Plan reflects the Program Administrators' coordinated approach to advance energy affordability and access to energy efficiency for New York's LMI residents and communities. The statewide portfolio approach described in this Plan utilizes the Program Administrators' investments in a complementary manner that better serves the LMI market segment, 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 provides a more holistic and coordinated approach to delivering energy efficiency to LMI customers and communities in New York and also: (1) improves the experience of and ultimate benefit for LMI customers seeking to access clean energy services; (2) reduces administrative costs and increases the impact of ratepayer funding; and (3) provides more consistent and streamlined participation for service providers.

The investments outlined in this Plan seek to address the equity issues outlined in the Climate Act that can be most directly addressed by clean energy programs, such as energy affordability, reduced fossil fuel combustion through efficiency and electrification, and enhanced community engagement. The Climate Act requires that disadvantaged communities shall receive no less than 35% (with a goal of 40%) of the overall benefits of spending on clean energy and energy efficiency programs, and the Program Administrators continue to adapt the LMI investments to meet this and other requirements as the work of the Climate Action Council and Climate Justice Working Group ("CJWG") advances.²¹ In December 2021, the CJWG decided on draft criteria for identifying DACs. In March 2022, the draft DAC criteria were released for public comment. The Program Administrators will look to apply the final DAC criteria to program strategy, eligibility, and implementation to benefit these communities, and, until that time, consider interim approaches to reach disadvantaged communities.

¹⁹ For the purpose of the Statewide LMI Portfolio, these initiatives serve customers located in the territories of the Utilities defined and do not serve customers in other utility territories across the state, unless otherwise noted. NYSERDA and the Utilities 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.

²⁰ This Plan is the first update to the initial 2020 Implementation Plan. This Plan reflects updates and modifications to the 2020 Plan, in the two years (approximately) since the original filing.

²¹ The Climate Justice Working Group is responsible for identifying disadvantaged communities, pursuant to the Climate Act, and it is expected that criteria for disadvantaged communities will be finalized in 2022. 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, <u>https://climate.ny.gov/Climate-Justice-Working-Group</u>

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.²² Low-income households, which comprise about 2.3 million households in the state, are defined as those with annual incomes at or below 60% of the State Median Income. Moderate-income households, which comprise about 1.2 million households in the state, are defined as those with annual incomes between 60% and 80% of the State Median Income or the Area Median Income (whichever is greater).²³

LMI households spend a disproportionate share of their annual income on energy bills²⁴ 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 benefit greatly from these improvements. LMI residents and communities also face challenges associated with quality-of-life issues, including health impacts associated with inefficient and deteriorating building stock due to lack of resources for 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 highperformance or clean energy improvements to their buildings. They also may not have access to resources and the 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 exceeding five or more units per building.²⁵ Those who rent apartments in these buildings often do not have the ability to make their own energy efficiency upgrades, and those who own apartments 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, tenants who are likely to move in the near term have no incentive to pursue such investments as they would not be able to reap the benefits over time.

²² 2019 American Community Survey: <u>https://www.census.gov/programs-surveys/acs</u>

²³ 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.

²⁴ According to 2020 Home Energy Affordability Gap data prepared by Fisher, Sheehan, and Colton and published in April 2021, 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/

²⁵ 2019 American Community Survey: <u>https://www.census.gov/programs-surveys/acs</u>

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 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.

Disadvantaged communities, which the Climate Act defines as "communities that bear burdens of negative public health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria, or comprise high-concentrations of low- and moderate-income households" also face greater challenges to accessing clean energy solutions.²⁶ Through the Statewide LMI Portfolio, the Program Administrators aim to increase access to energy efficiency and other clean energy solutions through direct investment in programs that can reduce energy burden for residents and communities, increase participation in eligible programs, and expand awareness of available resources and assistance. These solutions include offering 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 disadvantaged communities face are complex and, in some cases, broader than can be addressed through the Statewide LMI Portfolio alone. The Program Administrators continue to coordinate with State, local, and community-based organizations to identify opportunities for improving the impact of the Portfolio among 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 New Efficiency: New York ("NE: NY"), the Clean Energy Fund, and the Climate Act.

The Affordability Policy,²⁷ which seeks to address energy affordability for low-income households, provides direct bill relief in the form of utility bill discounts for low-income

²⁶ Chapter 106 of the Laws of 2019. The Climate Act is available at <u>https://legislation.nysenate.gov/pdf/bills/2019/S6599</u>.

²⁷ 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

customers, totaling approximately \$250 million annually. The Affordability Policy will work in tandem with the suite of clean energy programs discussed in this Implementation Plan to improve energy affordability for low-income New Yorkers.

The NYSERDA-administered CEF, instituted in 2016, seeks to improve energy affordability and access to clean energy for LMI households. In compliance with the 2020 NE: NY Order, all CEF investments in LMI households are incorporated into this Implementation Plan to provide a holistic view of all energy efficiency, building electrification, and renewable energy initiatives serving LMI households.

The NE: NY whitepaper ("NE: NY Whitepaper"), filed by DPS and NYSERDA in April 2018,²⁸ outlines a plan for substantially increasing the adoption of energy efficiency initiatives across all sectors of New York State's economy. The NE: NY Whitepaper concludes that increasing the adoption of energy efficiency initiatives 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 to 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 outlines a number of policy, programmatic, and funding considerations for increasing adoption of these initiatives.²⁹ The PSC adopted many elements of this proposal into its Accelerated Efficiency Order, issued in December 2018.³⁰

Signed into law in July 2019, the Climate Act outlines an ambitious climate and equity agenda for New York State that includes requirements for investing resources to benefit disadvantaged communities, requirements for the PSC to create programs to benefit LMI and disadvantaged communities, and requirements for mechanisms to track the adoption of clean energy solutions in the LMI customer market segment.³¹ New York has made significant progress in implementing the Climate Act, including the publication of the Draft Scoping Plan, which serves as an initial framework for how the State will reduce greenhouse gas emissions and achieve net-zero emissions, increase renewable energy

Income Program Modification and Directing Utility Filings, (issued May 20, 2016). 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.

²⁸ NE: NY Proceeding, New Efficiency: New York report (filed April 26, 2018).

²⁹ The NE: NY Whitepaper includes 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.

³⁰ NE: NY Proceeding, Order Adopting Accelerated Energy Efficiency Targets (issued December 13, 2018) ("Accelerated Efficiency Order").

³¹ Chapter 106 of the Laws of 2019. The Climate Act is available at <u>https://legislation.nysenate.gov/pdf/bills/2019/S6599</u>.

usage, and ensure climate justice. The Program Administrators will monitor developments and incorporate requirements related to the Climate Act, including directing clean energy program spending and benefits to disadvantaged communities in accordance with the finalized DAC criteria, once available, and the recommendations in the forthcoming Final Scoping Plan, 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 an ambitious agenda to advance the affordability and sustainability of housing across the state. In 2022, Governor Hochul announced the Two Million Homes Action Plan, a plan to achieve Two Million Climate-Friendly Homes -1 million electrified, 1 million electrification-ready, and a minimum of 800,000 serving LMI households – by 2030.³² In furtherance of this goal and advancing energy and housing affordability, New York's FY2023 Executive Budget adopted Governor Hochul's proposed \$25 billion 5-year plan for NYS HCR to create or preserve 100,000 units of affordable housing, including a new \$250 Million building electrification fund. In addition, in 2017, the City of New York advanced the Housing New York 2.0 plan, with goals to build or preserve 300,000 homes.³³ Further, in 2021, New York City passed a landmark law to phase out combustion of fossil fuels in new construction by 2027.³⁴ Affordable housing agencies have embraced a leadership role in developing and preserving affordable housing that is also highly efficient and electrified, which in turn can provide important co-benefits such as improved health outcomes and comfort of tenants and reduced operating costs for building owners.

2. Statewide LMI Portfolio

The Implementation Plan (both this version and the 2020 Plan) establishes the 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 also: (1) improves the experience of and ultimate impact for LMI customers seeking to access clean energy services; (2) reduces administrative costs; and (3) provides 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 2020 NE: NY Order and the Accelerated Efficiency Order. Through 2025, the Program Administrators are committing

³² <u>https://www.governor.ny.gov/news/governor-hochul-announces-plan-achieve-2-million-climate-friendly-homes-2030</u>

³³ <u>https://www1.nyc.gov/assets/hpd/downloads/pdfs/about/housing-new-york-2-0.pdf.</u>

³⁴ <u>https://www1.nyc.gov/office-of-the-mayor/news/852-21/mayor-de-blasio-signs-landmark-bill-ban-combustion-fossil-fuels-new-buildings</u>

approximately \$960 million³⁵ in clean energy investments through the Statewide LMI Portfolio. Beyond the Portfolio, NYSERDA and the Utilities are advancing initiatives that benefit disadvantaged communities through the CEF and the Utility System Energy Efficiency Plans ("SEEP"), including initiatives that contribute to the reduction of fossilfuel 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.³⁶

2.1 Statewide LMI Portfolio and Program Administration

The Program Administrators will continue to leverage their respective strengths in the ongoing development and implementation of the Statewide LMI Portfolio. The blending of the statewide reach and market development components of NYSERDA's CEF with existing Utility resource acquisition and customer relationship expertise, as well as increased LMI funding, enables the Portfolio to better address the barriers and challenges to expanding the reach of energy efficiency initiatives across the LMI customer market segment holistically. <u>Section 4</u> of this Plan, Statewide LMI Portfolio Initiatives, 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.³⁷ In developing the 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;

 $^{^{\}rm 35}$ \$614 million in funding from the CEF and \$346 million in Utility funding.

³⁶ 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. In April 2022, the Commission approved the 10 Gigawatt Framework for Distributed Solar, which includes investments in rooftop and community solar for low-income and disadvantaged communities. Beyond workforce development and LMI programs, the utilities and NYSERDA administer programs that provide incentives to improve energy efficiency and reduce fossil fuel combustion in commercial, industrial, and institutional buildings.

³⁷ NE: NY Proceeding, Accelerated Efficiency Order, p. 53.

- 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 requires consideration of the alignment of initiatives and investments that the Program Administrators already have in place, such as implementation contracts. The 2020 NE: NY Order directed the Program Administrators to implement new initiatives as soon as possible but acknowledged that it takes time to do so.³⁸ As such, the 2020 Implementation Plan described a transition period in which existing initiatives continued and/or were transitioned, alignment between existing initiatives and investments would take place, and new or modified initiatives would be developed to launch beginning in 2021. The 2020 Plan differentiated these transitional milestones using the following framing:

- Current Status outlined what initiatives were being offered in each sector in 2020³⁹
- Transitional Phase outlined the transitional elements that would be developed for each initiative and identified the remaining decisions and directions to be developed prior to full implementation
- Full Implementation outlined 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.

Since the July filing of the 2020 Implementation Plan, the Program Administrators have made significant progress from the 2020 Current Status to the Transitional Phase and Full Implementation. Accordingly, for this Implementation Plan, "Current Status" has been replaced by "Status Prior to new LMI Portfolio Statewide Offering."

This Implementation Plan reflects that progress to date in 2022. It outlines the ongoing transition from what is offered today to a modified and new set of initiatives. The Program Administrators have continued to develop and plan the implementation for each sector in the Statewide LMI Portfolio, as is described in the <u>Statewide LMI Portfolio</u> <u>Initiatives Section</u>.

³⁸ NE: NY Proceeding, 2020 NE: NY Order, p. 101.

³⁹ The Plan replaces the term "Current Status" with the term "Status Prior to new Statewide LMI Portfolio Offering."

In accordance with the 2020 NE: NY Order, the Implementation Plan is jointly updated and filed when substantive modifications to the Portfolio are made based on Portfolio performance, input from stakeholders, and discussion amongst the LMI JMC. Additionally, annually, the Program Administrators file a Statewide LMI Program Annual Report detailing the Portfolio's performance through the previous calendar year, any substantive findings, and planned areas for future improvement.

2.3.1 Coordination Points

In the 2020 Plan, the Program Administrators identified several complex coordination and administration elements that needed to be addressed after that filing to fully achieve the Plan's objectives, such as administrative efficiencies and reaching more LMI households. The Program Administrators filed a Statewide Low- to Moderate-Income Joint Management Committee Coordination Plan ("Coordination Plan") on November 13, 2020, which detailed progress on and plans for addressing these topics; the Program Administrators provided additional updates on the topics in the 2020 and 2021 Annual Reports.⁴⁰ This list of topics includes the following: (1) data sharing between the Utilities and NYSERDA; (2) issues related to evaluation, measurement, and verification ("EM&V"); (3) implementation contractor ("Implementation Contractor") procurement; (4) marketing; and (5) statewide application. A summary of the status of each these points is provided below.

Data Sharing Between the Program Administrators

The Coordination Plan noted that an important component of achieving the goals and objectives described in the Implementation Plan is the efficient sharing of data between the Utilities and NYSERDA. As noted in the 2020 Annual Report, such sharing must, however, balance the improved customer experience and streamlined administration of programs, with the need for diligence in rules, processes, and systems that protect customer privacy and security consistent with Commission and Program Administrator policies, laws, and regulations. The Program Administrators developed the following approach:

- Identify the data sharing needs for the Portfolio to streamline customer access to all eligible programs and minimize administrative friction;
- Develop a comprehensive understanding of the existing data sharing framework in place;
- Determine whether any gaps exist between data needs for the Portfolio and the existing data sharing framework; and
- Identify and implement solutions to address any gaps that are identified.

⁴⁰ NE: NY Proceeding, "Statewide Low- to Moderate-Income Joint Management Committee Coordination Plan" (Filed November 13, 2020). NE: NY Proceeding, 2020 Annual Report (filed April 1, 2021), pp. 6-8; 2021 Annual Report (filed April 1, 2022), pp., 12-16.

The Program Administrators have made significant progress regarding data sharing, including the following in AMEEP and EmPower NY:

<u>AMEEP</u>

- NYSERDA and the Utilities co-developed and now administer a lead intake form for AMEEP. This provides a uniform intake experience for customers statewide and efficiently channels customers to the appropriate utility service territory and associated Implementation Contractor.
- NYSERDA updated terms in its Flexible Technical Assistance ("FlexTech") program for customer consent authorizing NYSERDA to share FlexTech study information with the Utilities.
- Utilities aligned on and incorporated terms in the program application for customer consent authorizing the Utilities to share relevant application information with NYSERDA for coordination of technical assistance.⁴¹
- The Utilities are coordinating projects in overlapping service territories, which has required new and/or amended agreements and/or processes among the utilities and Implementation Contractors to enable the new customer experience and implement data sharing protocols to protect customer information, as well as updated program materials. The utilities are actively working to refine these efforts.

EmPower NY

- For EmPower NY, there is enhanced bidirectional data sharing in place. The Utilities provide customer referrals to NYSERDA on a periodic basis, which Program Administrators described in detail in Empower NY Referral Process filings submitted by each of the Utilities on October 25, 2021.⁴² NYSERDA shares individual and aggregate referral status information with each Utility via an interactive dashboard.
- The Program Administrators developed and executed agreements to allow for centralized program delivery and additional utility funding through EmPower to serve more customers and improve coordination for the benefit of customers and service providers.
- The Program Administrators approved revised attestation language for EmPower NY in February 2022 to enable ongoing sharing of customer data and a single access point to the program.

The Program Administrators continue to coordinate to expand the existing consent language across programs, which customers sign to participate, to enable ongoing

⁴¹ Usage data is not included in the application and is therefore not shared as part of this process.

⁴² Case 14-M-0094, Proceeding on Motion of the Commission to Consider a Clean Energy Fund.

sharing of customer data so that a customer would only need to provide their information once to gain access to a range of programs for which they are eligible. In 2022, the Program Administrators will develop a method for sharing AMEEP program data as well as portfolio level data amongst themselves to track program and portfolio performance and identify areas for improvement. As the Portfolio evolves, the Program Administrators will continue to assess data sharing needs, including identifying any additional high-impact data-sharing use cases to prioritize in 2022 and beyond.

Evaluation, Measurement, & Verification ("EM&V) EM&V is addressed in detail in <u>Section 8</u>.

Implementation Contractor Models and Procurement

The Program Administrators recognize the central function of Implementation Contractors in the Portfolio, noting that a more integrated set of initiatives between the Utilities and NYSERDA provides the potential to assess the role of Implementation Contractors to achieve economies of scale and reduce overall administrative costs within the Statewide LMI Portfolio.⁴³ The Coordination Plan identified and discussed a range of possible topics and solutions, including contracting timelines, Implementation Contractor functions, cost issues, and streamlining of different Implementation Contractor models among Program Administrators.

In developing the new statewide LMI multifamily program, the Program Administrators focused on the approach to procuring and contracting with Implementation Contractors. The Program Administrators assessed alternative Implementation Contractor⁴⁴ structures, and then selected and implemented a structure that enabled the expeditious and effective launch and implementation of the new Statewide program, currently using two Implementation Contractors for AMEEP, one covering Con Edison, Central Hudson, Orange & Rockland and National Grid's KEDLI and KEDNY service territories, and one covering NFGDC, NYSEG, RG&E, and National Grid's NMPC service territory.

For 1-4 Family Homes programs, a single Implementation Contractor model is used to deliver the LMI 1-4 Family Homes residential programs Statewide. NYSERDA administers the programs for the vast majority of the state, with implementation support provided by a third-party Implementation Contractor. In areas of the state where electric service is not provided by one of the Utilities, close coordination is occurring between the relevant electric providers (*i.e.*, on Long Island, and between NYSERDA and National Grid for the

⁴³ Case 18-M-0084 and Case 18-M-0094, *In the Matter of a Comprehensive Energy Efficiency Initiative*, Statewide Low- to Moderate-Income Joint Management Committee Coordination Plan (filed November 13, 2020).

⁴⁴ See, NE: NY Proceeding, Statewide Low- to Moderate-Income Portfolio 2021 Annual Report ("2021 Annual Report") (filed April 1, 2022), p. 15.

Home Energy Affordability Team ("HEAT") Program, or in municipal electric territories, where supplemental funding is provided through the RGGI Annual Operating Plan⁴⁵).

In 2022 the Program Administrators will, in consultation with Staff, continue to identify opportunities for achieving further cost efficiencies and improvements in Implementation Contractor structures.

Marketing

The Program Administrators developed and executed agreements to allow for centralized development and implementation of the NY Energy Advisor website and a statewide marketing campaign. Additional marketing details are provided in <u>Section 5</u>.

Development and Use of Single Applications Across Program Administrators

In the Coordination Plan, the Program Administrators identified the importance of assessing the program application process for participants. Feedback from customers, market actors, and other stakeholders confirmed the need to simplify and streamline the application process. The Program Administrators identified solutions to achieve these goals.

NYSERDA consulted with the LMI JMC on the design of a single statewide electronic application for the EmPower NY and AHP programs. The application portal was launched in 2021 and is working to expand access to information on these programs for customers in National Grid's KEDLI service territory. Similarly, the Program Administrators developed and implemented a single statewide application and intake form for AMEEP. Links to both program pages can be found on the NY Energy Advisor website,⁴⁶ and the AMEEP application can be found on the Statewide AMEEP documents page.⁴⁷

2.4 Portfolio Planning and Calibration

The development and calibration of the Statewide LMI Portfolio is informed through various inputs, including program performance and market insight from stakeholders, and is overseen by the LMI JMC and LMI Executive Council. Stakeholder engagement is a critical element to the success of the Statewide LMI Portfolio, and the Program Administrators use 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, including on material availability, cost increases, and workforce impacts. The Program

 ⁴⁵ RGGI Meeting and Planning Documents website <u>https://www.nyserda.ny.gov/Researchers-and-Policymakers/Regional-Greenhouse-Gas-Initiative/Useful-Documents</u>
 ⁴⁶ https://energyadvisor.ny.gov/

⁴⁷ <u>https://www.nyserda.ny.gov/All-Programs/Low-to-moderate-Income-Programs/LMI-Stakeholder-</u> <u>Resources-New-Efficiency-New-York/NYS-Affordable-Multifamily-Energy-Efficiency-Program</u>

Administrators will continue to 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 LMI Joint Management Committee

As described in the Statewide Low- to Moderate-Income Joint Management Committee Manual,⁴⁸ the LMI JMC provides a forum for the Program Administrators to jointly develop and coordinate new market offerings and assess and refine ongoing programmatic activity, in accordance with the Implementation Plan. The LMI JMC consists of representatives from each of the Utilities and NYSERDA, including a lead representative from each organization who serves as the point of contact for Committee-related communications and administrative matters. The DPS Staff provides an oversight and consultative role for the JMC.

2.4.2 LMI Executive Council

On September 9, 2021, in the Order Approving Clean Energy Fund Modifications ("CEF Modifications Order"), the Commission ordered the formation of an Executive Level Council to provide oversight and guidance to the LMI JMC.⁴⁹ The Program Administrators' JMC Manual Version 2, filed in December 2021, describes the purpose, membership, and core functions of the Executive Council, including communications with the LMI JMC.

In December 2021, the LMI JMC briefed the Executive Council on the status of Statewide LMI Portfolio milestones to guide priorities and workflow through 2022. Going forward into 2022 and beyond, the Committee will continue to engage with the Executive Council to accelerate the development of LMI Portfolio offerings.

2.4.3 Stakeholder Engagement

The effectiveness of the Portfolio largely depends on how well the initiatives and services function for customers and communities. Residents, communities, service providers, and other stakeholders provide beneficial insight that may otherwise not be readily and universally apparent. In combination with EM&V activities and Performance Metrics results, stakeholder engagement and feedback contribute to providing the Committee with 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 continued development and evolution of the Statewide LMI Portfolio and the

⁴⁸ NE: NY Proceeding, "Statewide Low- to Moderate-Income Joint Management Committee Manual, Version 2" (Filed December 22, 2021).

⁴⁹ NE: NY Proceeding, Order Approving Clean Energy Fund Modifications (Issued and Effective September 9, 2021), pp. 61-62, and Ordering Clause No. 9, p. 95. On December 22, 2021, the Program Administrators filed the updated Statewide Low- to Moderate-Income Joint Management Committee Manual Version 2, which describes the purpose, membership, and core functions of the Executive Council, including communications with the Committee.

ongoing operations of programs, the Program Administrators seek regular opportunities to engage with market partners and communities.

The Committee conducts two stakeholder engagement input sessions per year to review initiatives and services and Portfolio performance and discuss input with stakeholders comprised of staff from Community Based Organizations ("CBOs"), government, utilities, and other market partners. In addition, the Program Administrators conduct focused discussions with stakeholders through one-on-one and small group discussions to obtain input on proposed initiatives and services.

Details on each of the two annual stakeholder input engagement sessions, including meeting logistics, presentations, and a summary document reflecting key issues discussed, questions and answers received, and responses given during each stakeholder input engagement session are posted on the DPS Document and Matter Management website ("DMM").⁵⁰ Further, materials are posted on the LMI Stakeholder Resources webpage, which was specifically designed to give stakeholders easy access to documents related to stakeholder engagement.⁵¹

In addition, the Program Administrators engage stakeholders as appropriate in additional forums to get input. For example, as described further in <u>Section 4.2.1</u>, the Program Administrators engaged with stakeholders during the development of AMEEP in order to inform the design of the new program. As another example, in 2021, NYSERDA brought to completion a co-design process, jointly undertaken with over 30 stakeholder organizations, to develop the Regional Clean Energy Hubs initiative and the \$53M Regional Energy Hubs RFP, as described further in <u>Section 5.2</u>.

At LMI JMC meetings and applicable working groups, the Program Administrators regularly share, discuss, and integrate stakeholder input. Further, the Program Administrators are regularly engaging with stakeholders through the administration of current programs; feedback received during such engagement is raised and discussed at the LMI JMC and/or appropriate working groups. Annual Reports provide additional detail on stakeholder engagement each year.⁵²

2.5 Statewide LMI Portfolio Performance Metrics

The Program Administrators will continue to measure the success of the Statewide LMI Portfolio in meeting the objectives identified above by tracking the Performance Metrics

⁵⁰ NE: NY Proceeding, Statewide Low- to Moderate-Income Portfolio Stakeholder Webinar July 14, 2021 -Summary Report, (filed August 3, 2021); Statewide Low- to Moderate-Income Portfolio Stakeholder Webinar, November 17, 2021 - Summary Report, (filed December 10, 2021).

⁵¹ See, <u>https://www.nyserda.ny.gov/All-Programs/Low-to-moderate-Income-Programs/LMI-Stakeholder-</u><u>Resources-New-Efficiency-New-York.</u>

⁵² See, *e.g.*, 2021 Annual Report, Section 4, pp. 16-18.

shown in Table 1. Performance Metrics are foundational to assessing the Statewide LMI Portfolio's success and identifying areas for improvement. The Performance Metrics provide a roadmap for future Portfolio evaluation, guiding the investigation of 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 those that should be tracked to report performance. The Program Administrators track and report the Performance Metrics related to savings and spending in Table 1 quarterly for the Clean Energy Dashboard ("CED"), as well as each Annual Report. Appendix D describes how the remaining Performance Metrics will be assessed and reported. The Program Administrators will be looking to set targets for and report on these remaining metrics (*i.e.*, related to customer experience and efficiencies), in the future as well. The Program Administrators will survey stakeholders and customers periodically to gauge their awareness of and satisfaction with the program offerings over time. The third column in this table, "Status," addresses the current ability of the Program Administrators to assess each of the Performance Metrics.

Portfolio Objective	Performance Metrics	Status				
	Portfolio Savings & Spend					
	MWh annual and lifetime	Currently provided in CED				
	savings achievements	and Annual Report				
	MMBtu annual and lifetime	Currently provided in CED				
Achieve Portfolio-wide savings goals within budget	savings achievements	and Annual Report				
	CO2e Emission Reduction	Currently provided in CED				
	(metric tons) annual and	Currently provided in CED				
	lifetime savings achievements	and Annual Report				
	Budget spent	Currently provided in CED and Annual Report				
Portfolio Participation						
Increase the number of	Number of participants ⁵³	Currently provided in				
customers served annually	served	Annual Report				

Table 1: Portfolio Objectives and Performance Metrics

⁵³ For the purposes of this Plan, starting in 2022, "participant" is defined as dwelling units served in statewide programs. Dwelling units that receive both electric and gas measures are counted in both the electric and gas category by utility but will only be counted once at the state level. Prior to 2022, the definition of participants depended on the initiative type, and may have referred to households, multifamily buildings, tenants, and/or accounts.

Portfolio Objective	Performance Metrics	Status	
Adopt comprehensive ⁵⁴	Energy savings acquired from	To be provided in the 2022	
efficiency projects	comprehensive projects	Annual Report	
Pe	ortfolio Customer Experience		
Increase customer Portfolio awareness	Percentage of LMI customers that learn about Portfolio initiatives from various sources (<i>e.g.</i> , NY Energy Advisor website, Utility or NYSERDA outreach materials, contractors, etc.)	Program Administrators, including EM&V teams, are currently discussing approaches for assessing, including survey instruments, to be	
Achieve high customer satisfaction	Participation satisfaction rating	coordinated with evaluation contractors	
Advance energy affordability for LMI customers	Participant bill savings, annual and lifetime	Currently provided in Annual Report	
	Portfolio Efficiencies		
Increase efficiencies of Portfolio investments ⁵⁵	Cost associated with all Portfolio investments	To be provided in the 2022 Annual Report comparing year over year spend and unit costs (\$/MMBtu)	

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")⁵⁶ 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

⁵⁴ 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."

⁵⁵ Such efficiencies are described in <u>Section 3</u>, and may apply to categories including, but not limited to, administration, implementation, marketing, incentives, and EM&V.

⁵⁶ Federal Low-Income HEAP 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: <u>https://otda.ny.gov/programs/heap/</u>.

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 by households earning not more than 80% of Area Median Income or State Median Income, whichever is greater.⁵⁷

Where categorical eligibility cannot be established for programs, income screening may be conducted on an individual customer or building basis. Consistent with the 2020 NE: NY Order, the Utilities and NYSERDA will continue to 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 continue to seek to incorporate alternate methods of determining eligibility for programs, such as geographic eligibility, census-tract, demographic or other means of categorical eligibility.⁵⁸ This is expected to become increasingly important as the state seeks to invest more in disadvantaged communities per the Climate Act, and as Program Administrators seek more community-based and streamlined ways of delivering services.

With the launch of the combined program application, the EmPower program was able to add geographic eligibility as a method of determining program eligibility. Working with a subset of data used to inform draft DAC criteria development, the program identified census tracts where 50% or more of the residents were at or below 150% of the federal poverty line. All the residents of these areas are categorically eligible for EmPower and are not required to provide income documentation. Since the launch of this feature 17% of the applications to the program have come from these communities. Adding this method of determining program eligibility helps to reduce administrative costs, increase the number of customers served and improves customers' experience accessing the program. The Program Administrators will look to adopt the final DAC criteria, upon its approval, as a means to increase participation by residents of disadvantaged communities.

⁵⁷ Buildings that do not pay into the System Benefits Charge are not eligible for services through the Statewide 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.

⁵⁸ Examples include customer participation in housing or social service programs.

3. Budgets, Targets, and Other Impacts

The Statewide LMI Portfolio consolidates the initiatives and associated budgets and targets of the CEF and the Utilities. The 2020 NE: NY Order and Accelerated Efficiency Order combined approved a minimum of approximately \$308 million in statewide Utility incremental budgets for LMI gas and electric programs through 2025. As defined below, an additional \$37.4 million in other utility funding will be allocated to this Portfolio. Through the CEF, NYSERDA is incorporating \$614 million into the Portfolio to fund LMI clean energy initiatives over the same time period.^{59, 60} Combined, the Statewide LMI Portfolio will invest approximately \$960 million in LMI clean energy initiatives, with annual savings targets of 14,825,966 MMBtu and 655,660 MWh.⁶¹ Additionally, in their Long Island territory (KEDLI), National Grid is investing additional funding approved in their Joint Proposal⁶² to support the 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. Likewise, NYSEG RG&E plans to invest additional funds from market rate budgets in LMI supplemental programs as part of their Customer Awareness, Outreach, and Engagement initiatives for the years 2022-2025.⁶³ In an effort to maximize participation in AMEEP, Central Hudson is currently planning to exceed its cumulative gas LMI portfolio budget through a corresponding underspend of the cumulative authorized budgets for non-LMI programs.⁶⁴ Initiatives funded through the

⁵⁹ The \$614 million in CEF funding builds on the \$255 million that was already committed in the LMI Chapter of the CEF in 2020, which outlined the investments that have been made to advance energy affordability and access to clean energy solutions through the CEF. With the filing of the 2020 Implementation Plan, NYSERDA closed out the LMI Chapter of the CEF and included all future investments in clean energy in the LMI market segment in this Implementation Plan.

⁶⁰ 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 5 years for all funds to be expended. This dynamic is reflected in budget and target tables in this Plan.

⁶¹ Includes NYSERDA indirect annual savings.

 ⁶² Case 19-G-0310 et al – Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulation of KeySpan Gas East Corporation d/b/a National Grid for Gas Service, Order Approving Joint Proposal, as Modified, and Imposing Additional Requirements (issued August 12, 2021), p. 164.
 ⁶³ See Appendix A Table 4.

⁶⁴ Central Hudson is currently planning to exceed the cumulative gas LMI portfolio budget of \$2,124,356 authorized within the 2020 NENY Order by \$630,000. Utilizing the flexibility provided within the 2020 NENY Order, this expenditure will be addressed through a corresponding underspend of the cumulative authorized budgets for non-LMI programs. Total expenditures across all portfolios are forecasted to meet the total authorized amount in the 2020 NENY Order.

Portfolio include a combination of statewide initiatives, initiatives tailored to local needs, coordinated outreach and education, and market development⁶⁵ activities.

The budgets and targets presented below reflect revisions to projections from the 2020 Plan based on updated information and analysis regarding the estimated costs and savings for the statewide LMI initiatives. For several Program Administrators in particular, the targets described in this Plan differ materially from those in the 2020 Implementation Plan and the 2020 NE: NY Order, with the result being a decrease in the projected level of targeted savings.

A key factor behind this difference is that the budgets and targets from the 2020 Implementation Plan, the Accelerated Efficiency Order (issued December 2018) and the 2020 NE: NY Order (issued January 2020) were based on historic data (which predated those documents). Due to an array of factors, including inflation, COVID-19 pandemicrelated costs, and global supply chain issues, the unit cost data from that time period varies compared to actual unit costs seen in 2021. Generally, the historic data that underpins the ordered budgets and targets contained more projects that were completed at lower costs, with less effort and in shorter time spans than is expected to be seen in the future from this Portfolio, which is comprised of programs that encourage deeper and more comprehensive projects.

The Program Administrators note a greater discrepancy between the 2020 NE: NY Order and 2022 Plan run rates for the 1-4 Family Programs as compared to multifamily programs. Accordingly, the impact on utility targets is most pronounced for those utilities whose budget allocation leans most toward the 1-4 Family Homes sector, as opposed to multifamily. Similarly, utility gas programs show a greater discrepancy in run rates in current performance and future projections as compared to the 2020 NE: NY Order and 2020 Plan.

Program Administrator detail is included prior to the Program Administrator-specific budget and target tables in <u>Appendix B</u>. In summary:

Targets

- Projected achievement of electric Utility Program Administrator targets varies from overachievement, to alignment, to underachievement relative to 2020 NE: NY Order and 2020 Implementation Plan targets.
- Some utilities will meet or overachieve on ordered targets, though several gas Utility Program Administrators project to underachieve targets relative to the

⁶⁵As part of the Portfolio, the Program Administrators 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.

2020 NE: NY Order and 2020 Implementation Plan to a greater extent than electric.

• NYSERDA's funding is on a fuel neutral basis and aligns with the 2020 NE: NY Order and 2020 Implementation Plan budgets. NYSERDA projection regarding electric targets is aligned; NYSERDA projection regarding gas targets is aligned.

Budgets:

- Utilities plan to spend their total ordered electric and gas budgets through 2025 but may shift funds between commodities and years to optimize the ability to achieve targets.
- Some Program Administrators plan to allocate funds beyond the LMI funds authorized in the 2020 NE: NY Order, either from unspent funds from a prior year (within the NE: NY timeframe) from market rate energy efficiency programs, or from funding approved in Program Administrators' rate cases.

The Program Administrators acknowledge the challenge in providing highly accurate projections given that the initiatives going forward are generally different than what the Program Administrators have run in the past. This is exemplified by the Program Administrators' new multifamily statewide offering, AMEEP, launched in November 2021, and the planned launch of EmPower+ in 2023. Further, aggregate cost data that is available frequently reflects significant variance and unpredictability. The Program Administrators also note significant variance in costs at the project level. Likewise, due to AMEEP recently launching and EmPower+ launching in the future, energy savings were forecasted conservatively due to uncertainty of program realization rates and may vary based on actual project performance.

The Program Administrators remain committed to achieving cost efficiencies to reduce overall costs. The Program Administrators are pursuing several initiatives in this effort, including:

- Aligning multifamily Implementation Contractor structures regionally, and continuing to explore potential efficiencies as the program scales to achieve lower costs;
- Improving the referrals, lead generation, and customer access for the 1-4 Family LMI Homes sector;
- Having a single application intake process for multifamily and 1-4 family programs, with a single lead intake form for multifamily to avoid administrative costs of passing information back and forth between Program Administrators;
- Pre- and post-project inspections have been streamlined to have a single inspection for all program purposes, avoiding the costs and inconvenience of numerous inspections;

- Efficiencies in program administration in areas of overlapping electric and gas utilities;
- Program Administrators working together on a single NY Energy Advisor site and a statewide marketing campaign;
- NYSEG and National Grid working together on a direct-to-customer lighting program; and
- Combining and streamlining the EmPower and AHP programs into one new program, EmPower+, that will serve the 1-4 Family LMI sector beginning in 2023 with the aim of achieving administrative cost efficiencies.

Similarly, the Program Administrators have worked to forecast as accurately as possible and will continue to assess actual program cost data to advance the accuracy of budget and target projections. The need to identify and achieve cost efficiencies and to advance the accuracy of future projections further underscores the importance of the Program Administrators ongoing work together under the LMI JMC structure.

Based on Portfolio performance at the time of the Interim Review, the LMI JMC and Program Administrators individually may seek to address any discrepancies with the budgets and targets.

3.1 Portfolio-Level Budgets

This section addresses the Program Administrators' go-forward plans to fund the Statewide LMI Portfolio through 2025. The information provided in this section may differ from the budgets listed in the 2020 NE: NY Order and the 2020 Implementation Plan 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 2020 NE: NY Order and Accelerated Efficiency Order provide for the full recovery of all Portfolio costs, whereas for other Program Administrators, funding sources beyond those approved in the 2020 NE: NY Order are needed to fund the Portfolio costs and are being brought in from other areas.⁶⁶ The full breakdown of budget elements by market segment and Program Administrator is included in <u>Appendix B</u>.

⁶⁶ NE: NY Proceeding, 2020 NE: NY Order, pp. 65-69.

Table 2:	Portfolio	Electric Budgets	(\$000) ^{67 68}
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Program Administrator	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Central Hudson	-	-	166	175	213	332						885
Con Edison	6,373	3,737	8,135	12,606	19,853	4,308						55,011
National Grid (NMPC)	-	-	1,635	1,831	2,319	3,114						8,900
NYSEG	880	495	1,047	1,961	2,509	3,288						10,180
Orange & Rockland	-	-	751	702	708	161						2,322
RG&E	504	382	563	1,064	1,286	1,590						5,388
NYSERDA ⁶⁹	60,996	84,530	91,619	101,269	88,133	91,686	61,899	22,893	7,672	3,600		614,296
Total	68,753	89,143	103,914	119,608	115,020	104,479	61,899	22,893	7,672	3,600		696,982

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

Program Administrator	2020 Spend	2021	2022	2023	2024	2025	Total
Central Hudson	-	-	585	558	685	927	2,755
Con Edison	5,001	14,780	30,347	30,336	31,884	10,322	122,670
National Fuel Gas	5,431	3,936	6,795	7,043	6,919	7,032	37,157
Distribution Company							
National Grid (KEDLI)	1,559	1,442	3,749	4,689	5,685	5,979	23,102
National Grid (KEDNY)	-	-	4,606	5,295	6,261	8,233	24,396
	-	-	3,273	4,251	5,625	7,618	20,767
National Grid (NMPC)							
NYSEG	78	785	2,122	3,686	5,194	7,013	18,878
Orange & Rockland	-	-	1,564	1,500	416	233	3,712
RG&E	52	525	1,170	1,854	2,530	3,239	9,370
Total	12,121	21,469	54,211	59,212	65,198	50,596	262,807

⁶⁷ Expenditures in years 2026-2030 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 5 years for all funds to be expended.

⁶⁸ Budgets and targets presented in this Implementation Plan for 2020 and 2021 represent actual budget spend in those years.

⁶⁹ 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 Targets⁷⁰

This section outlines the Utilities' and NYSERDA's Portfolio savings targets from 2020-2025. The savings targets reflect planned achievements based on available budgets. 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 <u>Appendix B</u>.

Program Administrator	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Central Hudson	-	-	297	420	456	557						1,731
Con Edison	36,766	13,364	15,273	16,869	21,244	5,012						108,527
National Grid (NMPC)	-	-	5,784	2,933	2,138	2,540						13,395
New York State Electric & Gas	1,241	296	3,570	4,217	3,120	4,741						17,185
Orange & Rockland	-	-	2,379	740	750	344						4,213
Rochester Gas & Electric	828	317	1,684	2,201	1,465	2,314						8,810
NYSERDA (direct)	7,508	19,110	17,950	21,922	24,129	41,898	23,213	14,768	4,993	1,929		177,420
NYSERDA (indirect) ⁷¹	7,166	2,594	4,516	8,843	10,699	14,357	31,619	32,600	41,069	53,655	117,261	324,379
Total	53,509	35,681	51,452	58,145	64,002	71,763	54,832	47,368	46,062	55,584	117,261	655,660

Table 4: Portfolio Electric Targets (Annual MWh)

⁷⁰ Achievement throughout this Implementation Plan includes VGS impacts, *i.e.*, realization rate applied for evaluated savings and a placeholder adjustment factor applied for unevaluated programs.

⁷¹ NYSERDA indirect savings reported as plans throughout this Implementation Plan.

Program Administrator	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Central	-	-	2,679	3,184	3,951	5,388						15,202
Hudson												
Con Edison	95,296	202,544	299,143	279,329	281,099	81,815						1,239,226
National Fuel Gas	13,821	15,465	26,604	36,174	35,629	36,187						163,880
National Grid (KEDLI)	1,555	8,629	20,042	22,900	29,240	32,743						115,109
National Grid (KEDNY)	-	-	33,655	42,395	50,687	67,108						193,845
National Grid (NMPC)	-	-	20,998	32,082	42,103	57,484						152,667
New York State Electric & Gas	733	2,537	8,216	14,094	21,067	32,312						78,960
Orange & Rockland	-	-	8,960	11,505	6,133	5,221						31,819
Rochester Gas & Electric	770	1,500	4,530	10,242	14,866	21,596						53,504
NYSERDA (direct) ⁷²	168,650	275,286	458,059	777,205	531,111	717,688	497,322	179,649	107,912	91,449	81,270	3,885,601
NYSERDA (indirect)	53,329	14,392	91,995	254,845	332,152	417,443	718,539	622,301	693,061	863,386	2,387,949	6,449,392
Total	334,154	520,353	974,882	1,483,955	1,348,038	1,474,986	1,215,861	801,950	800,973	954,835	2,469,219	12,379,205

Table 5: Portfolio Natural Gas Targets (Annual MMBtu)

⁷² While NYSERDA does not administer natural gas budgets, NYSERDA does project MMBtu savings due to the fuel neutral nature of the CEF funds. MMBtu savings from fuels other than natural gas are presented below in Table 5.1.

Program Administrator	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
NYSERDA (direct)	56,196	76,236	96,360	189,167	103,169	147,221	89,176	11,195	1,401	536		770,657
NYSERDA (indirect)	3,817	758	20,101	74,184	93,511	115,240	188,907	164,848	182,538	225,119	607,081	1,676,104
Total	60,013	76,994	116,461	263,351	196,680	262,461	278,083	176,043	183,939	225,655	607,081	2,446,761

Table 5.1: Portfolio Other Fuels Targets (Annual MMBtu)

3.3 Portfolio-Level Impacts

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

Performance Metric	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Direct Annual MMBtu Savings ⁷³	337,021	582,197	979,247	1,418,277	1,119,055	1,204,764	586,498	190,844	109,313	91,985	81,270	6,700,470
Direct Lifetime MMBtu Savings	6,825,151	11,493,036	16,629,020	22,333,171	17,381,003	19,290,216	9,588,730	3,577,280	1,920,125	1,486,925	1,219,050	111,743,707
Indirect Annual MMBtu Savings	57,146	15,150	112,096	329,029	425,663	532,683	907,446	787,149	875,599	1,088,505	2,995,030	8,125,496
Indirect Lifetime MMBtu Savings	1,396,650	378,750	1,836,060	5,090,055	6,539,565	8,144,865	14,574,310	11,961,855	13,288,605	16,482,195	53,590,070	133,282,980
Direct Annual MWh Savings	46,343	33,087	46,936	49,302	53,303	57,406	23,213	14,768	4,993	1,929		331,281
Direct Lifetime MWh Savings	460,008	426,467	645,559	699,371	745,983	932,244	487,375	347,940	124,825	48,225		4,917,997
Indirect Annual MWh Savings	7,166	2,594	4,516	8,843	10,699	14,357	31,619	32,600	41,069	53,655	117,261	324,379
Indirect Lifetime MWh Savings	177,038	64,850	94,330	159,235	187,075	241,945	496,017	515,590	642,625	831,415	1,734,555	5,144,675
Direct CO2e Emission Reduction (metric tons) Annual	40,211	45,578	77,393	105,516	88,242	95,837	46,072	17,946	8,360	5,874	4,320	535,348

Table 6: Portfolio-Level Performance Metrics

⁷³ MMBtu savings include NYSERDA savings from fuels other than electric and gas.

Performance Metric	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Direct CO2e Emission Reduction (metric tons) Lifetime	571,293	781,065	1,237,302	1,577,255	1,329,533	1,538,122	807,134	388,595	165,816	103,667	64,806	8,564,588
Indirect CO2e Emission Reduction (metric tons) Annual	6,702	2,131	8,958	24,644	31,421	39,739	71,007	64,218	73,809	92,990	240,213	655,832
Indirect CO2e Emission Reduction (metric tons) Lifetime	164,667	53,277	156,170	326,589	428,240	570,340	1,146,399	1,059,084	1,284,772	1,675,169	4,471,157	11,335,864
Annual participant bill savings ⁷⁴ (\$000)	2,465	4,315	8,679	11,416	9,545	9,144	4,225	1,526	917	777	690	53,699
Lifetime participant bill savings (\$000)	47,989	83,352	141,719	177,118	145,714	146,244	69,762	28,670	16,016	12,516	10,352	879,452
Leveraged funds ⁷⁵ (\$000)	33,554	67,470	137,608	152,056	168,927	210,573	128,407	179,217	85,837	83,000	86,000	1,332,648
Annual Participants ^{76,77}	521,690	94,808	380,076	297,371	253,499	121,684	20,256	6,073	1,995	714		1,698,166

⁷⁴ Participant bill savings are calculated following guidelines described in Case 16-01008 MTPA Phase 1 Report July 17, 2017.

⁷⁵ 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.

⁷⁶ "Annual Participants" includes Customer Awareness, Outreach, and Engagement initiatives (see, <u>Section 5</u>, below) that tend to reach a large number of customers. A detailed breakout by sector is included in <u>Appendix C</u>.

⁷⁷ The definition of "participant" was standardized to "dwelling unit" for statewide programs starting in 2022.

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. ⁷⁸ As outlined in this plan, 66% of incremental energy efficiency budgets and 52% of total Portfolio budgets have been allocated to the affordable multifamily market segment. Budget flexibility across the Portfolio will need to be maintained to cumulatively meet the 40% threshold. 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 serving 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 reflect changes implemented in achieving the Portfolio to date and highlight the work that will continue to be undertaken to transition from the prior 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 <u>Section 2.4: Portfolio Planning and Calibration</u>.

4.1 Existing 1-4 Family Homes

The Program Administrators have worked to improve overall energy affordability for LMI households living in 1-4 family homes by providing no-cost or subsidized energy efficiency upgrades and energy education for both renters and homeowners through the EmPower NY⁷⁹ program. Low-income households are eligible for no-cost energy efficiency improvements through the EmPower NY program, while moderate-income households are eligible for incentives of 50% of the cost of the energy efficiency upgrades through AHP. Those customers may also be eligible for no-cost energy audits and for low-cost financing of energy upgrades through the GJGNY Program.

⁷⁸ NE: NY Proceeding, Accelerated Efficiency Order, p. 55.

⁷⁹ 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.

Leveraging the existing statewide 1-4 Family Homes framework of EmPower NY and AHP to reach more households and achieve economies of scale, EmPower+ has been designed and will be launched in 2023. The redesign of this initiative will:

- Consider use of a graduated incentive scale
- Align with HEAT and PSEG LI programs
- Improve identification and referral of customers by utilities
- Expand on direct install for moderate-income households
- Align measures across income tiers
- Support new deployment models including pre-approved packages of measures
- Include geographic eligibility for disadvantaged communities
- Support community campaigns and other approaches to aggregate demand for energy upgrades and reduce per-home costs

Utilities will continue to 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. The Utilities are working closely with NYSERDA to improve referrals of customers to the EmPower NY program to increase customer participation and lower acquisition costs.

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
- Commence shifting toward decarbonization, in alignment with the Climate Act, through a stepwise approach to electrification and phase-out out of fossil fuel use for home heating and hot water, starting with those use cases where electrification will provide both decarbonization and affordability benefits for the customer

Overview

Status Prior to new Statewide LMI Portfolio Offering	In 2020, 2021, and 2022 up to the time of the filing of the Implementation Plan, the 1-4 family homes LMI customer market segment has been served by several programs including EmPower NY and AHP administered by NYSERDA statewide, the LIURP in NFGDC territory, and the HEAT program in the National Grid-Long Island territory. National Grid administered the EmPower Replacement Program in their Long Island territory, marketed under the brand name "Home Energy Affordability Team" (HEAT) program. It was designed to closely align with the EmPower NY program. The HEAT program provides gas energy efficiency and health, safety and resiliency measures to customers. The EmPower NY, LIURP, and HEAT programs have been available to low-income households and provided no-cost energy services, while the AHP program has been available to both low
	and moderate-income households, providing a 50% cost share towards the cost of an energy efficiency work scope. Utilities have been referring and continue to refer customers to EmPower NY.
	The EmPower NY program uses funding from multiple sources including CEF, NE: NY, RGGI and HEAP to increase the reach of the program across the state. In addition, the program closely coordinates with WAP and HEAP.
Transitional Phase	Through 2020, 2021, and 2022 up to the time of the filing of this Implementation Plan, the Program Administrators continued to offer the programs as they are currently designed, while programs and funding are transitioned into a cohesive statewide approach. The Program Administrators are working to 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.
	In July of 2021 the EmPower NY and AHP programs launched a streamlined online and paper application for both programs that includes geographic eligibility for certain low-income areas. In the Fall of 2021 agreements between NYSERDA and the Utilities were executed that enable the Utilities to provide supplemental funding to the EmPower program to increase participation in each service territory.
	During the program design activities, the Program Administrators have engaged with service providers, customers, and other stakeholders to obtain feedback and insights to inform the final program design. NYSERDA and the Utilities worked closely to develop a framework for EmPower+ which will lead to a unified program that is streamlined to

	create easier access for LMI customers, one access point for contractors seeking incentives, and a robust design to lead the state towards beneficial electrification. This will create cost efficiencies through reduced administrative costs and encourage increased customer participation.
	In March of 2022, the statewide program instituted many of the planned efficiencies the JMC has worked on including unified measures across income tiers and expanding direct install to moderate income customers.
Full Implementation	The merged, streamlined, EmPower+ program workflow will launch in 2023. This program will be administered statewide in close coordination with PSEG-LI and the WAP, HEAP, and local housing programs to optimize the deployment of clean energy investments in the program.
	In 2022, the HEAT program will expand program eligibility to moderate income customers and test aspects of the EmPower+ incentive structure design to provide learning and refine the program design prior to statewide launch.

Target Market and Delivery Method

Market	Low-income homeowners and renters in 1-4 family homes who meet
Segment	income eligibility thresholds.
Addressed	In instances where a tenant in a multifamily building is referred for program services, the tenant will be eligible for electrical reduction measures. The building owner will also be encouraged to conduct a more comprehensive upgrade of the building.
Delivery Method	EmPower NY is delivered through a network of approximately 200 weatherization and home performance contractors across New York State, except for Long Island, where HEAT is delivered through several home performance contractor partners.
	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, the NY Energy Advisor website's marketing campaign,
community-based partners, and participating contractors.

Eligible Measures and Incentive Structure

Eligible	Comprehensive home audit
0	
Measures	In-home energy education
	• Building shell improvements (<i>i.e.,</i> insulation, blower-door assisted air
	sealing, weather stripping)
	• Electric load reduction (<i>e.g.</i> , 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>i.e.</i>, 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	Low-income (statewide other than for HEAT program): 100% subsidy for all
Structure	measures up to project cap as outlined in the program guidelines. ⁸⁰ The
	HEAT program also pays 100% subsidy for all measures and aims to review
	projects and utilize other funding resources once they exceed project cap.
	Moderate-income: currently customers are eligible for a 50% subsidy on eligible measures/work scopes.
	The Program Administrators, in consultation with stakeholders, customers, and contractors, are considering a more graduated incentives scale for the EmPower+ program, which will launch in 2023. LMI customers may 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. The HEAT program will align incentives with the statewide program and will test aspects of it during the 2022 program year prior to full statewide launch in 2023.

⁸⁰ <u>https://www.nyserda.ny.gov/All-Programs/EmPower-New-York</u>

Stakeholder / Market Engagement

Key Partners	NYS Office of Temporary and Disability Assistance – coordinate outreach and funding to HEAP recipients to reduce utility bills
	• NYS HCR - Combined project with WAP subgrantees and coordinate
	beneficial electrification strategies for 1-4 family homes.
	• Departments of Social Services- perform outreach and application
	intake
	Community-based organizations- Coordinate outreach, disaster
	response, program design
	NYS Office for the Aging

Additional Considerations

	
Additional	In addition to CEF and NE: NY funds, NYSERDA also incorporates funding
Funding	from the RGGI and HEAP to increase the number of households served.
	NFGDC will bring in additional LMI funding from their SEEP portfolio to support this program.
	National Grid (KEDLI) will bring in additional funding approved in their Joint Proposal for the HEAT 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 (2022-2024)

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.

Year	Milestone	Status
2022	 Improve coordination with other programs (<i>e.g.</i>, HEAP and WAP) Enhance effectiveness of the EmPower referral process and improve customer conversion rate by conforming to consistent data file submission to NYSERDA Identify ways to enhance or add measures to the existing EmPower offerings, particularly for gas savings Contract for new program workflow software and implementation support services Increase awareness, community outreach and education through coordination with the new Clean Energy Hubs and existing utility outreach programs 	In Progress
	 Work with NYS Clean Heat JMC to streamline customer access to both NYS Clean Heat and EmPower with appropriate affordability protections Outline and seek input on a plan to phase out support for fossil fuel fired equipped in GJGNY audits, financing, and LMI programs to align with Climate Act while preserving energy affordability. 	Planning
2023	Launch the combined, streamlined LMI program- EmPower+	In Progress
	 Increase DAC access to Empower+ by incorporating DAC geographic eligibility and coordinating with regional Clean Energy Hubs on targeted outreach to DACs Integrate Empower+ and NYS Clean Heat offerings to increase access to incentives for electrification 	Planning
2024	 Evaluate program performance and optimize design to serve more homes and encourage more contractors to offer efficiency and electrification services through the program Increase contractor base and expand offerings to meet increased climate goals 	Planning

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

Affordable multifamily housing is a key component of the Statewide LMI Portfolio, as a large proportion of LMI customers in New York State live in multifamily buildings. Improving the performance and sustainability of affordable multifamily housing will benefit disadvantaged communities, as required by the Climate Act. As directed in the 2020 NE: NY Order, at least 40% of the portfolio's incremental energy efficiency funds must be directed to affordable multifamily initiatives through 2025. The Program Administrators are administering a set of initiatives to increase the performance of existing affordable multifamily buildings through comprehensive energy efficiency upgrades and technical support to address the challenges and barriers of adoption for this sector. These initiatives were designed through the collaboration of the Utilities, NYSERDA, and affordable housing agencies. These initiatives were strategically developed to leverage existing programs. For example, FlexTech was leveraged to provide technical assistance for the newly launched AMEEP, and expanded to enable deeper decarbonization measures through, for example, NYSERDA providing additional funds and technical assistance for NYC HPD and NYS HCR preservation programs.

All the initiatives in this section are administered in a complementary approach 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 and implement programs to enable buildings to undertake multiple upgrades and understand the initiatives offered to them. This requires close coordination of the Program Administrators to implement.

On November 3, 2021, the Program Administrators launched AMEEP, a new, coordinated statewide program to meet the State's and the Program Administrators' objectives for energy efficiency in this important sector. AMEEP includes a technical assistance offering, which helps building owners inform capital planning to achieve greater energy efficiency savings. AMEEP's design reflects key Portfolio objectives of helping affordable multifamily buildings reduce energy use and costs, increasing operating efficiency and tenant comfort, and contributing to the State's carbon reduction and climate goals.

In addition, the Program Administrators worked closely with affordable housing agencies. The Program Administrators consulted with housing agencies and their developers on the design of AMEEP. In addition, NYSERDA announced creation of multi-year partnerships with NYS HCR and NYC HPD to integrate decarbonization technical assistance support and incentives directly into the housing finance process, while supporting the development of more aggressive sustainability guidelines, new energy savings underwriting guidelines, and training among housing agency staff to position the agencies as leaders in making efficient, electrified housing their standard practice.

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
- Provide a 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 Statewide LMI Portfolio's incremental energy efficiency funds to affordable multifamily initiatives

4.2.1 Statewide Existing Affordable Multifamily Programs

Affordable Multifamily Energy Efficiency Program

The new Statewide existing affordable multifamily program, AMEEP, provides 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. A key focus of AMEEP is to encourage comprehensive upgrades to achieve deeper savings, while taking advantage of opportunities to reduce administrative costs.

Multi-Year Affordable Housing Partnerships

As a complement to AMEEP, Program Administrators have formed multi-year partnerships with state and local affordable housing agencies and public housing authorities, who in turn continue to demonstrate vital leadership on climate action and building decarbonization, in both existing and new construction building stock. NYSERDA and NYS HCR recently announced a transformative partnership called the Clean Energy Initiative ("CEI"), providing CEF funding to support state-of-the-art all-electric affordable homes and streamline access to technical assistance and electrification funding by integrating these resources directly into NYS HCR's affordable housing finance applications. Ultimately, NYSERDA will provide \$100M in funding through 2025 to support NYS HCR to advance efficient all-electric new construction and retrofits in affordable housing ahead of proposed code changes and mandates.

In a similar effort, NYSERDA partnered with NYC HPD to create the Retrofit Electrification Pilot, with NYSERDA providing funding to support space heating and cooling and/or domestic hot water electrification for existing multifamily building rehabilitation projects in NYC HPD's preservation programs and bring the comfort and health benefits of electrification to LMI residents. These partnerships demonstrate scalable models for integrating efficiency and electrification technical assistance and incentives into affordable housing refinancing by giving owners direct access to decarbonization resources and funding as part of their refinancing process.

In 2021, NYSERDA also joined forces with the NYCHA -- the largest public housing authority in the country and the largest landlord in New York City – and NYPA to create the Clean Heat for All Challenge, a heating and cooling industry competition to create a packaged, cold climate heat pump that can be mounted in a window opening and provide comfortable efficient heating and cooling to NYCHA residents on a room-byroom basis. The partnership leverages RGGI funding and technical assistance from NYSERDA, NYPA's procurement vehicle and project management, and NYCHA's portfolio size and funding commitment to invest \$250M in a proven solution to advance their electrification agenda.

Overview

Status Prior to new Statewide LMI Portfolio Offering	Until the launch of AMEEP in November 2021, existing affordable multifamily buildings were served through utility administered initiatives and NYSERDA administered initiatives. Through the CEF, NYSERDA administered 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 offered an energy audit and incentives to assist in the development of a scope of work that would achieve at least 15% projected energy savings. Buildings received a construction completion incentive that was calculated per dwelling unit, and performance incentives were available to projects achieving a minimum of 15% of energy savings. Through MPP, NYSERDA also supported the adoption of Integrated Physical Needs Assessments ("IPNAs") by supporting housing agencies in their development of IPNAs.
	Con Edison and National Grid (KEDLI, KEDNY, and NMPC) each offered financial incentives for approved equipment upgrades by measure for affordable multifamily buildings. ⁸¹ NYSEG/RG&E introduced an LMI multifamily program mid-year 2020, which was an extension of its existing market rate program, offering free energy audits and low-to no- cost equipment upgrades. In this program, buildings received one incentive at the time of construction completion and the incentive was calculated per equipment installed. Each of these utility programs differed slightly in measures offered and incentive structure. For example, Con Edison implemented an affordable multifamily program for several years, which offered increased incentives over market rate

⁸¹ For National Grid, incentives were part of a market-rate program that was also available to LMI customers.

	incentives for eligible affordable multifamily buildings. National Grid and NYSEG/RG&E also offered measure-specific incentives for energy efficiency upgrades in multifamily buildings. In addition, the aforementioned utilities offered a Direct Install Program that offered multifamily buildings no-cost installation of easy to install measures in tenant units and common areas. There were strengths and weaknesses to this pre-AMEEP state of the affordable multifamily programs across the State. The utilities that had existing affordable multifamily programs had successful relationships within their market and achieved increasing energy savings year over year. There are significant regional differences, however, in the population of affordable multifamily buildings across the State, which was reflected in these prior utilities' programs. This also informed the development of AMEEP, which is a statewide framework with some specific elements reflecting regional differences.
Transitional Phase	For this sector, a significant portion of the Transitional Phase has been the transition from the prior Program Administrator administered existing multifamily building programs to AMEEP. The Program Administrators began developing the framework for the new statewide multifamily program in Fall 2020 and focused on the development of AMEEP in 2021, culminating in its market launch in November 2021. The Program Administrators collaborated extensively on the design of AMEEP. This collaboration included reviewing and assessing their separate, existing multifamily LMI programs, and ultimately adopting numerous best practices and optimal elements from these. The Program Administrators similarly assessed possible changes and improvements, opportunities for achieving cost efficiencies, and incorporating key innovations into program design.
	As the various design possibilities were suggested and considered within Program Administrator discussions, the Program Administrators iteratively solicited input from stakeholders. In 2021, the Program Administrators: held two public stakeholder engagement sessions at which the LMI multifamily program was a key focus; met several times with the SAG, a stakeholder group convened by DPS Staff as part of the PM&IP regarding the Statewide LMI portfolio ⁸² ; and engaged in one-on- one interviews with additional stakeholders, including housing agencies, building owners, and energy efficiency providers with significant expertise and experience in multifamily energy efficiency programs in New York State. The Program Administrators carefully reviewed the feedback, key themes of which include that the new program should: • Be easy to sell and understand; • Provide incentive clarity;

⁸² See, NE: NY Proceeding, Commencement of Energy Efficiency & Building Electrification Performance Management & Improvement Process, (filed May 29, 2020.) See also, 2020 NE: NY Order, pp. 60-61.

 Have a design that allows for broad participation and flexibility in work scopes; Drive quality, deep work scopes; and Eliminate possible barriers for customers
The time, effort, and insight offered by stakeholders was instrumental in developing and iteratively refining AMEEP's design (as described below and detailed in the AMEEP Program Manual ⁸³).
 In developing AMEEP, program design focused on the following key design elements: Measures offered Incentive structure Emphasis on creation of an incentive structure that encourages buildings to complete comprehensive upgrades, with flexibility for prescriptive approaches Application process Contractor network Lead intake and 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 the incentive-based program with technical assistance offerings. Require building owners to complete energy studies and move forward with making equipment upgrades
In launching AMEEP, the Utilities and NYSERDA coordinated on a statewide transition of programs in the market. As MPP wound down, NYSERDA and the Utilities organized a strategic overlap period of three months in which both MPP and AMEEP were operational, allowing the market sufficient time to submit final MPP project applications and adjust to the new AMEEP structure.
In addition, the Program Administrators have worked with affordable housing agencies and stakeholders to ensure AMEEP was accessible to regulated affordable properties.
NYSERDA partnered with the housing agencies to develop an approach to directly integrate efficiency program incentives as part of the financing process. This resulted in the launch of the NYSERDA- HPD Retrofit

⁸³ See, <u>https://cdnc-dcxprod2-sitecore.azureedge.net/-/media/files/coned/documents/save-energy-money/rebates-incentives-tax-credits/rebates-incentives-for-multifamily-customers/nys-affordable-building/program-manual.pdf?rev=9a1cad1ee94d44e0b08b48fa75c8ee0c&hash=95B37418F77EEF76652B8886CF5F74B7</u>

	Electrification Pilot to provide owners receiving NYC HPD financing with additional funding to undertake deep efficiency and electrification
	upgrades as part of their rehabilitation projects. NYSERDA is providing \$24M to support space heating and cooling and/or domestic hot water electrification for existing multifamily building rehabilitation projects in NYC HPD's preservation programs to bring the comfort and health benefits of electrification to roughly 1,200 LMI households.
	NYSERDA and NYS HCR announced a partnership called the Clean Energy Initiative ("CEI"), creating a one-stop process for developers to access technical assistance, direct integration of efficiency and electrification funding, and affordable financing, serving both affordable housing new construction and preservation. Since 2021, NYSERDA has allocated \$32.5M to HCR to disperse to affordable housing finance applicants that implement efficient, all-electric new construction and retrofits.
	In 2021, NYSERDA announced a partnership with the NYCHA – the largest public housing authority in the country and the largest landlord in New York City – and the NYPA to create the Clean Heat for All Challenge, a heating and cooling industry competition to create a packaged, cold climate heat pump that can be mounted in a window opening and provide comfortable efficient heating and cooling to NYCHA residents on a room-by-room basis. The partnership leverages RGGI funding and technical assistance from NYSERDA, NYPA's procurement vehicle and project management, and NYCHA's portfolio size and funding commitment to invest \$250M in a proven solution to advance their electrification agenda.
	In 2021, Con Edison also leveraged and fostered several working relationships to support energy efficiency in multifamily buildings. Con Edison has been meeting regularly with NYCHA to provide additional support for their multifamily projects, and coordinated on work with the New York City Mayor's Office of Climate and Environmental Justice and NYC HPD. Con Edison launched a Local Law 97 limited offering in partnership with NYC HPD and New York City Accelerator, aimed at helping certain buildings comply with the law by implementing the necessary prescriptive energy conservation measures. As part of this offering, Con Edison and NYC HPD developed a prescriptive measure package for NYC HPD asset managed buildings greater than 25,000 square feet in size. Incentives for these packages are provided on a dollar per dwelling unit basis based on building vintage. NYC Accelerator is conducting outreach on behalf of this offering. They have developed materials to engage building owners that highlight energy savings and available incentives. Further, Con Edison began partnering with NYC HPD and NYSERDA on the Retrofit Electrification Pilot, helping to coordinate program incentives to fill funding gaps in these projects.
Full	To a significant degree, the launch of AMEEP into market reflects Full
Implementation	Implementation status for this sector. AMEEP is a single Statewide

program that provides a streamlined customer experience throughout the State, with each Utility offering the same program structure. Leads and inquiries are directed to each utility through a common web intake portal, and all the Utilities use the same customer application. Additionally, the participating contractor network requirements and application are the same at each utility. Buildings that fall in overlapping utility service territories only need to submit one application, work with one utility Implementation Contractor as their main point of contact during the project process, and any inspections are performed by a single party. Streamlining administration of the program in this manner has the potential to create cost efficiencies. In addition to coordination among Utilities, the Utilities are coordinating with NYSERDA on technical assistance for AMEEP participants. Customers have the ability to perform a whole-building energy retrofit through AMEEP's "Comprehensive Pathway." This pathway requires that the project work scope be guided by an energy audit, which can be completed through Utility coordination with NYSERDA's FlexTech program, as described in <u>Section 4.2.2</u> . Alternatively, customers may choose to perform single measure upgrades through AMEEP's "Non- Comprehensive Pathway." The AMEEP incentive structure is described in more detail in the Eligible Measures and Incentive Structure table, below.
While the launch of AMEEP into market reflects Full Implementation status for this sector to a large degree, the Program Administrators are continuing to enhance elements of the program. For example, AMEEP and NYS Clean Heat have been coordinating in an effort to enable complementary incentives between both programs. Further, the Program Administrators are continuing to refine the AMEEP offering based on operational experience and stakeholder feedback, and will continue to work with external agencies that serve affordable multifamily buildings and stakeholders.
To achieve full implementation with the housing agencies, NYSERDA will continue to expand its direct funding partnerships with state and local housing agencies to serve more units with efficiency and electrification and build capacity among housing agencies and affordable housing development community to build or retrofit all-electric efficient buildings at low or no incremental cost; enhance underwriting practices to capture value of highly efficient, electrified buildings; to reach both new construction and preservation pipelines, and support development of sustainability guidelines that advance the affordability and sustainability goals of Governor Hochul's 5-year Affordable Housing Plan, and deliver on the State's climate goals by requiring high-performance all-electric retrofits by 2027. ⁸⁴

⁸⁴ <u>https://hcr.ny.gov/sustainability-guidelines</u>

Target Market and Delivery Method

Market	Affordable multifamily buildings, tenants living in affordable multifamily
Segment	buildings, affordable multifamily building owners, housing agencies, service
Addressed	providers, participating contractors, and other parties working with
	affordable multifamily buildings and building owners.
Delivery	The Utilities are the AMEEP Administrators, with NYSERDA providing energy
Method	audits and market development elements. Energy audits are completed by
	NYSERDA-approved energy providers in the FlexTech Consultant network
	and Multifamily Building Solutions Network and are available statewide.
	Two Implementation Contractors administer AMEEP, one for upstate
	National Grid, NFGDC, and NYSEG and RG&E, and one for the other Utilities.
	Eligible participating contractors complete installations of eligible measures.
	Utilities coordinate in overlapping utility service territories, so that
	customers work with only one implementation contractor in executing
	projects. The Program Administrators continue to examine the current state
	of implementation across the state to identify areas for improvement to
	reduce administrative inefficiencies, increase enrollment, and promote
	comprehensive upgrades. In addition, NYSERDA provides funding directly to
	housing agencies (<i>e.g.,</i> NYS HCR and NYC HPD) to serve affordable housing
	developers as part of the financing process.

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
	Light emitting diode ("LED") lighting measures
	Faucet aerator
	Showerhead
Incentive	AMEEP is designed to maximize energy savings and lower costs to tenants
Structure	and owners of affordable multifamily buildings by encouraging
	comprehensive building upgrades while providing project flexibility. AMEEP
	includes two program pathways: (1) a "Comprehensive Pathway," which

encourages whole-building energy retrofits; and (2) a "Non-Comprehensive Pathway" for customers who are interested in smaller, measure-level upgrades.
Incentives for all Comprehensive Pathway projects are calculated using a "points" system, which allocates points to energy efficiency measures based on measure savings and policy objectives, and establishes points- achievement tiers that result in increased incentive rates. A minimum of 100 points needs to be met for a project to be classified as a Comprehensive project; a project is designated as Tier 1 – with the corresponding incentive level – if it achieves between 100 and 149 points. If a project reaches 150 or more points, it is categorized as a Tier 2 project and is eligible to receive a greater incentive. Comprehensive incentives are awarded on a dollar per dwelling unit basis. An energy audit is required as part of the Comprehensive Pathway to help identify the scope of work, and incentives are available to offset the cost of the audit through the FlexTech Program.
Customers opting for the Non-Comprehensive Pathway are able to perform measure-level energy efficiency upgrades. They may select to complete prescriptive and custom measures, and can participate in the in-unit direct install program, without undergoing an energy audit. Incentives in this pathway are awarded on a dollar per equipment or dollar per savings basis.
For affordable housing partnerships including Retrofit Electrification pilot with NYC HPD, and the Clean Energy Initiative with NYS HCR, NYSERDA is providing a per-dwelling unit incentive based on package of efficiency and/or electrification measures.

Stakeholder / Market Engagement

Key Partners	NYSERDA and Con Edison have worked with NYS HCR and NYC HPD to offer complementary strategies to the market. This coordination will continue.
	Con Edison maintains ongoing monthly conversations with the NYC Mayor's Office of Climate and Environmental Justice (specifically, the NYC Accelerator staff) 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>i.e.</i> , 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.

NYSERDA partnered with NYCHA and the NYPA to create the Clean Heat for All Challenge, a heating and cooling industry competition to create a packaged, cold climate heat pump that can be mounted in a window opening and provide comfortable efficient heating and cooling to NYCHA residents on a room-by-room basis. The partnership leverages RGGI funding and technical assistance from NYSERDA, NYPA's procurement vehicle and project management, and NYCHA's portfolio size and funding commitment to invest \$250M in a proven solution to advance their electrification agenda.
Additional stakeholder involvement occurred throughout 2020 and 2021, and continues to occur in 2022, as the Statewide Existing Affordable Multifamily framework is implemented. This stakeholder involvement takes place in biannual stakeholder sessions as well as targeted solicitation of feedback and input from stakeholders to guide continuing operation and calibration of AMEEP.

Implementation Milestones (2022-2024)

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Implementation milestones will be further developed as the Program Administrators work towards Full Implementation of the new Statewide Existing Affordable Multifamily Program. The Program Administrators note that any continuing effects of the COVID-19 pandemic may modify implementation milestones.

Year	Milestone	Status
2022	 Identify additional areas to streamline administration of program Develop Program Administrator processes for statewide operations of AMEEP (<i>e.g.</i>, document updates) and launch webinar series to engage Participating Contractors and Industry Partners by Q2 Coordinate AMEEP incentives with NYS Clean Heat and align release to market with NYS Clean Heat announcement cycles for program changes Along with NYCHA and NYPA, NYSERDA will select winning manufacturer(s) that responded to Clean Heat for All packaged window heat pump challenge RFP Provide technical assistance and staffing resources to assist with capacity-building at NYS HCR and NYC HPD 	In Progress
2023	 Organize stakeholder interviews on AMEEP design and operations based on the first full year of operation to get feedback to guide analysis and potential program changes, and adapt program eligibility to reflect final DAC criteria Review program objectives and operations to enable alignment with potential policy changes scheduled to take place in 2022 and 2023 	Future

	 (e.g., NE: NY Interim Review, Climate Act definition of providing benefits to DACs) Issue initial small purchase order for and install packaged window heat pumps in NYCHA properties as part of 'demonstration phase' of Clean Heat for All initiative 	
2024	 Study creation of measure packages for comprehensive retrofits by building typology based on data from AMEEP participants, and assess ability to offer packages as part of AMEEP Assess viability of packaged window heat pumps as an effective electrification approach/model for NYCHA housing and broader NY multifamily market Pending success of demonstration phase, initiate broader implementation phase of Clean Heat for All initiative and install additional packaged window heat pumps 	Future

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 requires 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 support and resources to the affordable multifamily ecosystem.

Objectives:

- Conduct comprehensive energy audits for existing affordable and market rate multifamily housing utilizing vetted energy service providers
- Subsidize energy audit costs to incentivize market adoption of conducting such audits
- Develop report that covers: the relevant building information (*e.g.*, building's energy usage, annual energy costs by fuel type, rate tariff); evaluated measure

findings, which includes but is not limited to a description of what was evaluated, analysis results, proposed conditions, and recommendations and reasons for recommendations; economic analysis of evaluated measures; and additional benefits, such as greenhouse gas reduction, Local Law compliance, and environmental benefits. The report is intended to inform decision makers on how to reduce energy costs and incorporate clean energy into their capital planning.

- Establish a scope of work that would qualify for the comprehensive pathway of AMEEP.
- Conduct assessment of electrification and electrification-ready opportunities.

Overview	

Status Prior to new Statewide LMI Portfolio Offering	NYSERDA administered the FlexTech program which offers a cost share model for building owners to receive funding to conduct an energy study on their building. NYSERDA also offered 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 Phase	 In the development of AMEEP, the Program Administrators assessed and sought feedback on the optimal approach and design elements for technical assistance, with the focus on NYSERDA's existing offerings, such as FlexTech. Specific areas of design focus included: Providing buildings with a consistent, main point of contact for AMEEP when performing technical assistance and subsequently installing measures in the program Leveraging NYSERDA-vetted energy service providers to conduct technical assistance to ensure quality of assessments Partnering technical assistance with incentive program offerings; offer increased subsidies on technical assistance for Comprehensive projects going through the utility administered affordable multifamily incentive programs
	Con Edison, as part of its Rate Plan, ⁸⁵ is required to offer technical assistance funding for affordable multifamily building owners. As part of AMEEP, Con Edison is working with the framework of FlexTech, which is leveraged for technical assistance statewide, to implement its Rate Plan requirements. As a transitional offering, while AMEEP was under development in 2021 and the coordination with FlexTech was not yet implemented, Con Edison implemented technical assistance for its customers in the form of gas facility surveys and full facility assessments. Through the gas facility survey, an audit was performed and a report was provided that evaluated gas opportunities. These included boilers, boiler

⁸⁵ 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.

	clean & tune, EMS, pipe insulation, steam traps, and building envelope. Through the full facility assessments, a whole building facility audit was performed. A report was then provided that covered equipment details, occupancy, HVAC systems, air delivery systems, boiler systems, motors, pumps, ventilation systems, lighting, building management, and building envelope. The report also provided a list of suggested energy conservation measures (ECMs). Following these surveys and assessments, the customer was required to move forward with two of three free gas measures. This offering closed at the completion of 2021, as which point the launch of AMEEP enabled streamlined coordination of technical assistance for Con Edison customers via FlexTech.
Full Implementation	Funding for building energy audits that identify energy efficiency opportunities and develop an initial scope of work for Comprehensive projects are provided through NYSERDA's FlexTech program. NYSERDA manages payment for technical assistance energy audits. NYSERDA also oversees workforce development and the training of energy service providers through the FlexTech Consultant Network and the Multifamily Building Solutions Network.
	AMEEP requires technical assistance in order to qualify for higher incentives available in the Comprehensive Pathway. Technical assistance helps building owners plan projects to achieve greater energy efficiency savings and simultaneously maximize program incentive opportunities. The audits completed should be ASHRAE Level I+ as defined by NYSERDA's FlexTech Program, or higher (<i>e.g.</i> , ASHRAE Level II, IPNA). ⁸⁶ Multifamily building owners and their representatives in need of a study can work with their utility point of contact, who will coordinate with NYSERDA to arrange funding for the study. The owner and their representative will select a service provider from NYSERDA's FlexTech or Multifamily Building Solutions network of consultants to perform the audit, and to help in developing a project work scope. NYSERDA will provide a 50% subsidy for the study at completion of the audit, helping to ease the cost burden on the affordable buildings. Afterwards, the project will be executed under the utility- administered incentive program. When a Notice to Proceed has been issued for the building to begin construction under AMEEP, NYSERDA will subsidize an additional 25% of the study for an overall maximum cost share of 75%. This two-part subsidy structure is aimed at providing customers with an additional incentive to follow through on project construction.
	provide support and capacity development to help increase building performance requirements for regulated properties and to assess results

⁸⁶ See, <u>https://cdnc-dcxprod2-sitecore.azureedge.net/-/media/files/coned/documents/save-energy-money/rebates-incentives-tax-credits/rebates-incentives-for-multifamily-customers/nys-affordable-building/program-manual.pdf?rev=9a1cad1ee94d44e0b08b48fa75c8ee0c&hash=95B37418F77EEF76652B8886CF5F74B7</u>

from IPNAs. NYSERDA will also 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. Additionally, NYSERDA will provide technical assistance and funding for NYC HPD and NYS HCR preservation programs to drive greater energy performance.
With NYC HPD, NYSERDA has developed a pilot to incentivize and scale energy efficiency and electrification retrofits. NYSERDA will provide gap funding to cover the incremental amount of funding needed for electrification over the standard NYC HPD energy performance improvement. The pilot will also include pre-defined scope and a dedicated Technical Assistance Provider to promote and enable electrification. Through this direct injection of incentives model, NYSERDA and NYC HPD are streamlining the incentive delivery process, will strengthen understanding and internal capabilities within NYC HPD and test replicability and scalability of this pilot.
With NYS HCR, NYSERDA is providing funds to support electrification and deep envelope improvements and providing housing developers with streamlined access to technical assistance and affordable housing incentive opportunities. The funding and pilot model creates a one-stop process for developers to access building decarbonization- focused incentives as part of NYS HCR's application for affordable housing development support.
With both NYS HCR and NYC HPD, NYSERDA is funding technical assistance contractors to work with the agencies to build internal capacity and assist owner teams.

Market Segment Addressed	Multifamily buildings with 5 or more dwelling units that meet the definition of affordability, where at least 25% of the households are at or below 80% of the State Median Income or Area Median Income, whichever is higher.
	Additionally, housing agencies (NYC HPD, New York City Housing Development Corporation ("HDC"), NYS HCR), energy service providers that specialize in multifamily housing, tenants living in affordable housing, and other parties working with affordable multifamily buildings and building owners.
Delivery	Utilize framework of NYSERDA consultants; coordination with housing
Method	agencies to provide necessary support

Eligible Measures and Incentive Structure

Eligible Study Areas	 Energy efficiency technical analyses 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 75% of cost of technical assistance services
Structure	

Stakeholder / Market Engagement

Key Partners	Housing agencies (<i>e.g.</i> , NYS HCR, NYC HPD, Public Housing Authorities),
	service providers, and other housing intermediaries

Implementation Milestones (2022-2023)

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.

Year	Milestone	Status
2022	 Engage with NYS HCR colleagues, affordable housing owners and developers to refine integration of technical assistance within housing financing application processes Encourage energy service providers to include electrification and/or electrification-readiness as part of any subsidized technical assistance scopes to support long-term decarbonization efforts 	In Progress
	 Update program eligibility to increase access in disadvantaged communities 	Planning
2023	 Provide technical assistance resources to housing agencies to build in-house capacity to assess and support sustainability as part of core mission 	In Progress

Require consideration of electrification and/or	Planning
electrification-readiness as part of any subsidized technical assistance to enable long-term building	
decarbonization efforts	

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 RetrofitNY⁸⁷

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 to 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 housing units in the state are either publicly owned or subsidized by regulatory or

⁸⁷ RetrofitNY was approved as part of the Clean Energy Fund LMI Chapter, and with the transition to the Statewide LMI Portfolio, is now included in this Implementation Plan.

financing agencies, presenting a unique opportunity to create demand for retrofit solutions by aggregating a large number of units to be renovated.

Since its public launch in 2018, RetrofitNY has identified key barriers to scaling deep energy retrofits in New York State and beyond. Key major barriers include underinvestment, industry fragmentation, high customer acquisition costs, and misallocation of risks. These current market failures drive up costs and hamper rapid decarbonization in the building sector.

To achieve broad adoption of deep energy retrofits and address key barriers, RetrofitNY has two main program goals: (1) drive down the costs of installed solutions, and (2) lower building owner upfront capital needs.

Substantial cost reduction is a function of deliberate investment. RetrofitNY has identified the major barriers to investment in this space and is bringing solutions to the market to eliminate these barriers and facilitate the deployment of investment capital to support needed market development. Cost drivers targeted by RetrofitNY include:

- Transaction costs
- Business model and value chain costs
- Customer acquisition costs
- Installation costs
- Solution design
- Component fabrication costs
- Financing costs

Lowering building owner upfront costs will greatly increase adoption rates of deep energy retrofit solutions. Sizing the market opportunity and pricing the value of deep energy retrofits, which includes avoided costs, new sources of revenue, and reduced risk of the retrofit solution is key to reducing upfront capital requirements.

RetrofitNY market interventions to reduce upfront capital requirements focus on the following areas:

- Developing financial mechanisms that assign value to outcomes
- Reducing performance and technology risk for financial providers
- Lower nonpayment risk for financial providers
- Remove frictions for financial providers to enter this market
- Developing standard performance measurements for risk reduction, humidity levels, longevity, noise dampening, and air quality
- Developing markets for risk reduction, humidity levels, longevity, noise dampening, air quality, carbon savings

The RetrofitNY program will lead or support the following market interventions to realize an end-state solution and develop a retrofit value chain that is both time and resource efficient:

- Warranty for offsite manufactured whole building retrofit solutions
- Qualify retrofit companies capable of turnkey delivery of replicable solutions
- Marketplace and customer acquisition platform
- Support the development of financial products and market mechanisms that effectively value the outcomes of fully electrified buildings
- Loan loss reserve fund (or first loss reserve) for whole building retrofit solution ecosystem
- Product testing and tech transfer support
- Coordination on R&D investment areas
- Coordination on workforce development initiatives
- Reduce insurance costs for the construction and operation of carbon neutral buildings
- Engagement with investors
- Direct financial support for retrofit projects

Addressing the barriers and market development areas laid out above will result in a selfsustaining carbon neutral buildings retrofit market. The innovative market strategy under RetrofitNY is designed to achieve scale in the fastest time scale, which would take multiple decades under a business-as-usual approach.

Objectives:

- Develop simplified, scalable solutions for conducting deep energy retrofits in occupied 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 that approach or achieve carbon neutrality across prevalent building types and different housing market segments
- Ensure that affordable housing is prioritized when it comes to developing solutions for enabling the adoption of whole building retrofit solutions
- Assist the architecture, engineering, technology, 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 increased project feasibility and uptake by building owners.

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 NYS HCR, NYC HPD and 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 a Design-Build Process The potential for a large, new market will motivate the industry to answer competitive solicitations and engage in several rounds of a design-build and implementation process focused on predetermined buildings from affordable housing portfolios in New York. The solutions will be selected and tested through implementation on the specified buildings. Initial demonstration projects will be implemented on building types that are highly representative of the affordable housing building stock (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. Using lessons learned from the prior round of installations, NYSERDA will organize subsequent funding rounds to improve the solutions until they meet all predefined criteria and adapt them to additional building types. The number of funding rounds will be based on the progress of the solution designs. NYSERDA will fund part of the incremental development 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 process. 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 the market is self-sustaining.
cre	parallel to the development of technical solutions, NYSERDA will help eate an enabling environment for large scale implementation of the esigned solutions through activities 4, 5,6, 7 and 8.
4.	 Create a clear and transparent mechanism for stakeholders interested in developing and piloting retrofit solutions NYSERDA will set up and administer a set of rolling Request for Qualifications ("RFQL") to target solution providers, component manufacturers and building owners The RFQLs will be used to communicate market needs and assess viability of interested stakeholders
5.	 Support the development of solution providers that will serve to streamline the design and installation process acting as a turn-key entity to building owners Due to market fragmentation, there are many drivers that contribute to inflated costs on projects. A turn-key provider will achieve cost compression by investing in technologies to drive down costs and develop long term relationships with supply chain partners and installer networks.
6.	 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. NYSERDA will work with national partners, such as Dept of Energy, to support R&D efforts for needed technologies to scale deep energy retrofits. NYSERDA will assess and qualify major relevant building components, such as mechanical systems, panelized building envelope products and monitoring systems for use in whole building retrofit solutions.
7.	Develop Financial Solutions to Finance the Retrofits

	• In conjunction with interested lenders, NYSERDA will collaborate 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.
8.	 Support Development of Insurance and or Warranty Products to Facilitate Market Scaling To scale whole building retrofits, robust warranty products are
	needed to shift technology risks away from building owners to allow for rapid adoption and scale up.
	 NYSERDA will engage industry stakeholders to scope and support development of a warranty product that solution providers can issue to building owners that adopt these whole building retrofit solutions.
9.	Work with national partners to drive market development of a regional collaborative for deep energy retrofit projects
	 NYSERDA will engage national partners, such as Dept. of Energy, National non-profits, and other interested states to disseminate the learnings of the program to support development of similar programs in other states.

Status Prior to new Statewide LMI Portfolio Offering	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, cannot be achieved in a cost-effective way. Integrated components, such as cost-effective panelized envelope solutions and multi- functional HVAC units, are needed for scale-up do not exist in the NYS market. There are several barriers to scaling deep energy retrofits in the affordable multifamily building market segment, such as high cost and difficulty of financing for building owners. The deep energy retrofits currently being done are complex, not replicable, and are not cost- effective.
Transitional Phase	 To create a self-sustaining marketplace for the deep-energy retrofits of tenanted multifamily buildings in New York State, NYSERDA will: 1. Defined 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 NYS HCR, NYC HPD and the HDC as well as other agencies, Public Housing Authorities, and private owners of
 large portfolio across the state to secure the appropriate demand. Organize and Run a Design-Build Process The potential for a large, new market will motivate the industry to answer competitive solicitations and engage in several rounds of a
 design-build and implementation process focused on predetermined buildings from affordable housing portfolios in New York. The solutions will be selected and tested through implementation on the specified buildings. Initial demonstration projects will be
 implemented on building types that are highly representative of the affordable housing building stock (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 prior round of installations, NYSERDA will organize subsequent funding rounds to improve the solutions until they meet all predefined criteria and adapt them to
 additional building types. The number of funding rounds will be based on the progress of the solution designs. NYSERDA will fund part of the incremental development 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 process. 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 the market is self-sustaining.

	 4. Create a clear and transparent mechanism for stakeholders interested in developing and piloting retrofit solutions NYSERDA will set up and administer a set of rolling RFQL to target solution providers, component manufacturers and building owners The RFQLs will be used to communicate market needs and assess viability of interested stakeholders
	 5. Support the development of solution providers that will serve to streamline the design and installation process acting as a turn-key entity to building owners Due to market fragmentation, there are many drivers that contribute to inflated costs on projects. A turn-key provider will achieve cost compression by investing in technologies to drive down costs and develop long term relationships with supply chain partners and installer networks.
	 6. Work with national partners to drive market development of a regional collaborative for deep energy retrofit projects NYSERDA will engage national partners, such as Dept. of Energy, National non-profits, and other interested states to disseminate the learnings of the program to support development of similar programs in other states.
Full Implementation	For an end market for deep energy retrofits to be viable, the following programmatic elements need to exist.
	 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. NYSERDA will work with national partners, such as Dept of Energy, to support R&D efforts for needed technologies to scale deep energy retrofits. NYSERDA will assess and qualify major relevant building components, such as mechanical systems, panelized building envelope products and monitoring systems for use in whole building retrofit solutions.
	 2. Develop Financial Solutions to Finance the Retrofits In conjunction with interested lenders, NYSERDA will collaborate 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.

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 NYS HCR, NYC HPD, the New York State Housing Finance Agency, and HDC. NYSERDA will subsequently expand its target market to other building sectors containing typologies that are a good fit for the solutions developed.
Delivery	The administration of RetrofitNY includes:
Method	• The development of high-level criteria that the architecture, engineering, technology, 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.
	• Qualifying solution providers, component manufacturers and building owners that would be eligible for demonstration pilots through periodic funding rounds.
	 Organizing a design-build process to select and test the developed solutions through demonstration pilots. Using lessons learned from funding rounds, NYSERDA will organize subsequent rounds 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.
	• Facilitating innovative financing by interested private sector lenders to leverage energy and operational savings to provide additional capital to buildings.
	• Hosting investor groups to bring needed investment to companies with technologies that can drive cost compression of solutions 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 NYS HCR and NYC HPD
	 Housing Finance Agencies including New York State Housing Finance Agency, and HDC Private building owners
	 Builders, developers, architects, suppliers, engineers, building scientists, building technology firms and other service providers
	• Private financing companies, insurance and re-insurance companies, and energy service companies
	Department of Energy
	Other regional entities interested in scaling deep energy retrofits

Implementation Milestones (2022-2025)

Year	Milestone	Status
2023	Integration of retrofit solutions in the public housing authorities' strategies	In Progress
2024	Integration of retrofit solutions into regulated affordable housing preservation strategies	Future
2025	 Deliver retrofit solutions that are cost effective such that NYSERDA subsidies are no longer necessary Develop a market for building components and systems required for deep energy retrofits are readily available in the New York market Support creation of financing solutions to facilitate building owners' 	Future
	uptake of the retrofit these solutions at scale	

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 and carbon neutral new construction can significantly reduce the energy consumption and related costs in the residential sector than would otherwise be expected, delivering not just energy bill savings for residents and building owners, but also improving the health and comfort of residents and providing resilient and sustainable housing stock that delivers long term energy savings and carbon emission reductions. Despite the many benefits, only a small portion of residential new construction is achieving carbon neutral or net zero energy performance. 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 continue to 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 have converted their market engagement strategy to deliver incentives and services directly within the public housing agencies, and will likely limit, reduce, or even end other financial incentives or technical support in the market.

Objectives:

- Improve the building performance through reduction of site energy use of affordable new construction, with the goal of carbon neutral performance
- 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 that are replicable, with a focus on cost optimization
- Continue to 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 carbon neutral construction for new and gut rehab of single family and multifamily buildings

Overview

Current Status	 NYSERDA administered the Affordable New Construction Housing Program across the State, which provides: Technical and financial support to public housing agencies Technical assistance to projects seeking to achieve high performance energy efficiency buildings Incentives to housing developers and builders, with incentive levels based on the performance of the building Quality Assurance ("QA") services through third parties such as Residential Energy Services Network ("RESNET")-accredited Rating Quality Assurance Providers, Multifamily Review Organizations ("MRO"), or qualified certifiers/verifiers to one of the Passive House standards In addition, NYSERDA administered the Buildings of Excellence competition, which seeks to identify replicable models for the design, construction, and renovation of affordable housing. In 2022, the affordable new construction activities funded through the CEF (including Standard Offer and Buildings of Excellence) will be offered while incentive programs are fully transitioned to Housing Agencies to be provided within existing financing and capital stack offerings. In addition, the Program Administrators will explore the development of prescriptive packages of measures that can drive higher performance, <i>i.e.</i>, 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 as necessary and ensure the greatest impact of ratepayer funding.
Full Implementation	 In 2022-2025, the affordable new construction offerings will include: Incentives for carbon neutral affordable new construction to increase the performance of renovation 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 will continue

Target Market and Delivery Method

Market	Builders, developers, owners, architects, engineers, energy modelers and
Segment	other construction entities for new buildings or substantial renovation of
Addressed	affordable single family or multifamily buildings
Delivery	Incentives will be provided to builders and developers. However, the
Method	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, engineers, builders, and developers.

Eligible Measures and Incentive Structure

Eligible	The Affordable New Construction initiative assesses the performance of the
Measures	building. Envelope, decarbonized HVAC, appliances, and efficient lighting
	measures are all eligible for inclusion in incentivized projects.
Incentive	Incentives will be provided by NYSERDA to affordable new construction and
Structure	renovation projects based on the level of energy savings achieved, as
	outlined in the program documents. The Buildings of Excellence competition
	provides incentives for innovative design and construction of zero carbon
	emitting multifamily buildings. Housing Agencies will offer Clean Energy
	Incentives for new construction and renovation projects that meet efficiency
	and decarbonization performance criteria.

Stakeholder / Market Engagement

Key Partners	NYSERDA has worked with NYS HCR and NYC HPD to offer complementary strategies to the market. This coordination will continue.
	Program Administrators will continue to work directly with housing agencies to incorporate funding into new construction projects to offset incremental costs associated with higher performance.
	NYSERDA has developed channel partner relationships with organizations that deliver professional development and educational opportunities to the market to facilitate the dissemination of best practices and cost compression opportunities to builders, developers, energy modelers and consultants.
	Additional stakeholder involvement occurred throughout 2020 and 2021, and continues to occur in 2022, with additional key partners including community development corporations ("CDCs"), developers, builders, architects, engineers, housing intermediaries, non-profit builders, Home Energy Rating System ("HERS") raters.

Implementation Milestones (2022-2025)

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.

Year	Milestone	Status
2022	 Launch of high-performance demonstrations and competitions Incorporation of lessons learned from previous demonstrations and competitions 	Complete
	 Launch of Round 3 of the Buildings of Excellence Multifamily Design Competition Expand integrated funding with State and local affordable housing agencies 	In Progress
2023	 Continue expanded integration with public housing agencies Utilize data and successful solution sets from decarbonization projects to deploy information through Channel Partners, conferences and other general awareness activities 	In Progress
2024	 Continue expanded integration with public housing agencies Utilize data and successful solution sets from decarbonization projects to deploy information through channel partners, conferences, and other general awareness activities 	Future
2025	 Continue expanded integration with public housing agencies Utilize data and successful solution sets from decarbonization projects to deploy information through channel partners, conferences, and other general awareness activities 	Future

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 Demonstrations⁸⁸

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 Statewide LMI Portfolio, the Program Administrators will continue to incorporate the piloting and demonstration of new technologies and approaches for serving LMI customers and communities.

Through pilot activities, the Program administrators seek to:

- 1. Identify and test technologies and/or approaches for addressing the barriers to improving energy efficiency in the LMI market segment;
- 2. Test approaches that can scale the adoption of energy efficiency solutions in the LMI market segment;
- 3. 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
- 4. Determine innovative approaches for improving awareness and access to energy efficiency solutions for LMI or otherwise disadvantaged communities.

The Program Administrators 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 continue to 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 JMC. In addition, the Program Administrators will report annually on pilot activities, including results and planning. For example, the 2021 Annual Report noted achievements including the development of educational materials aimed at LMI customers and building owners who have recently installed heat pumps, to support behavioral change and proper system operations.

Ongoing work is continuing to evaluate lessons learned from research, analysis, pilots, and incentive offerings. The Program Administrators expect to develop and launch LMI-focused pilot activities during 2022.

⁸⁸ In general, the sections of this Implementation Plan use a similar template in presenting information. The content in certain sections does not readily conform to this template – notably <u>Section 4.4 Pilots and</u> <u>Demonstrations</u> and <u>Section 4.5 Beneficial Electrification in LMI Homes</u>; therefore, these sections use a more typical prose presentation.

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 LMI Homes

Given that approximately 30% of the State's greenhouse gas emissions come from heating and cooling of buildings, the Climate Act's goal of a carbon neutral economy by 2050 requires a major investment and shift in focus to homes that are heated through energy efficient and electrically powered technologies. Such a transition is referred to as *beneficial electrification*, meaning that transitioning to electric will reduce emissions of greenhouse gases and other pollutants.⁸⁹ Heat pumps represent the most efficient commercially available solution to electrify space heating, cooling, and domestic hot water heaters.

However, electrification in the LMI sector presents unique challenges and economic and institutional barriers. In markets where natural gas is much less expensive than electricity, for example, homes switching from gas-fired boilers or furnaces to heat pumps risk increasing utility bills for LMI customers. Tenants in rental housing face the potential for new monthly utility bills should a heat pump retrofit result in shifting costs from heating fuel (typically not paid by tenants) to electricity costs (typically paid by tenants). Heat pumps are not yet integrated into existing benefits programs providing energy-related support to income-qualified households, such as HEAP and WAP.

On the other hand, electrification offers potential health and other benefits to at-risk residents. Heat pumps can provide both heating and cooling services, presenting additional value to homes that previously had limited or no cooling systems. Through reductions in on-site combustion, electrification has been shown to reduce indoor pollutants that exacerbate respiratory illness. As such, investments in beneficial electrification in the LMI market segment as part of this Statewide LMI Portfolio seek to maintain energy affordability and consumer protections, while providing these benefits and increasing access to clean energy solutions for LMI communities, households, and building owners.

As articulated in the NYS Clean Heat filing in 2020,⁹⁰ NYSERDA has allocated \$30 million⁹¹ of its \$250 million Clean Heating and Cooling Investment Plan for 2020-2025 to market

⁸⁹ <u>https://www.raponline.org/wp-content/uploads/2018/06/6-19-2018-RAP-BE-Principles2.pdf.</u>

⁹⁰ *See,* NE: NY Proceeding, NYS Clean Heat: Statewide Heat Pump Program Implementation Plan (filed March 16, 2020 and updated May 29, 2020), Appendix A.

⁹¹ 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.

interventions that 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 barriers to electrification and ways to mitigate these with targeted solutions and best practices across various building types, as well as strategies to maintain affordability, 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. These incentives will identify approximately 1,500 LMI homes and apartments that have undergone heat pump conversions, from which to collect data and other learnings.

• Consumer education:

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

Of the above activities, NYSERDA has recently completed a research study characterizing the LMI housing market statewide, identifying promising market segments for targeted electrification efforts including recommendations for program and other interventions to support implementation. NYSERDA has also spent down its short-term incentives budget in the single-family sector, also known as the Heat Pump Demonstration Study, and expects to have all multifamily funding committed by the end of 2022. Residents and building owners of these projects are being provided educational materials developed under the \$30 million budget. Projects from both sectors will be included in an evaluation study that kicked off in early 2022. Early learnings from the evaluation will be incorporated into existing programs in coordination with DPS and the Utilities.

In 2022, Program Administrators will continue to coordinate on these efforts to advance beneficial electrification in the LMI market segment, with a particular focus on developing a cohesive framework for maintaining energy affordability while moving to electrification. This effort will continue to inform long term investments in beneficial electrification for LMI homeowners and tenants in affordable housing. To encourage beneficial electrification specifically in existing affordable multifamily buildings, the Program Administrators have been and will continue to coordinate between AMEEP and NYS Clean Heat. See <u>Section 4.2.1</u> for more details.

As noted in the 2021 Annual Report, 2021 achievements include the design and launch of one-page brochures for both 1-4 family homes and multifamily buildings, providing operational guidance for heat pump end users and building owners. Brochures were provided to participants in the LMI Heat Pump Adder Pilot.

Implementation Milestones (2022-2024)

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.

Year	Milestone	Status
2022	 Launch evaluation and market insights study based on projects completed through short-term incentive offering incentive offerings Publish LMI chapter within Building Electrification Roadmap, outlining key policy approaches to scale LMI electrification through 2030 Partner with sister State agencies to aggressively shift existing benefit programs into alignment with the State's housing decarbonization targets, especially LIHEAP, WAP, and the State's Energy Affordability Policy and Utility Energy Assistance Programs 	In Progress
	 Conduct research and analysis leading to the development of an Affordability and Consumer Protections framework for LMI Electrification, outlined in the Two Million Homes Action Plan Continue programmatic support for LMI heat pump installations, with a focus on segments that present the least technical difficulty and/or the most favorable return on investment, including buildings using delivered fuels and electric resistance heat, buildings with inefficient gas furnaces or boilers, and multifamily buildings with steam distribution systems Design and launch a program offering supporting rapid response heat pump conversions in situations where existing fossil heating systems are at or near failure Launch additional program support for LMI multifamily building owners seeking to integrate electrification into their portfolio, by providing wraparound services for guidance on capital planning, identifying best-fit technology solutions, employee training, project scoping, how to overcome hurdles related to existing subsidy 	Planning

	 agreements and tenant leases, and identifying incentives and other financial support for installing heat pumps Design pilot(s) supporting DHW electrification conversions for multifamily buildings Launch research focused on policy and regulatory initiatives that can further enable heat pump adoption in LMI housing Conduct stakeholder engagement to develop promising approaches for community- and place-based interventions supporting heat pump deployment in LMI and Disadvantaged Communities Develop and launch additional educational materials for LMI customers and building owners, including short how-to videos and other multimedia offerings In collaboration with DPS and the Utilities, identify the scope of and pathway to increased support for pre-electrification make-ready work such as electrical panel upgrades 	
2023	 Publish interim learnings from the single family LMI heat pump demonstration study (short term incentives) Publish interim learnings from the multifamily LMI heat pump demonstrations study (short term incentives) Revise program rules to incorporate learnings from affordability and consumer protections research 	Future
2024	 Publish interim learnings from pilots and demonstrations Revise program rules to incorporate affordability and consumer protections learnings from research and evaluation of real-world projects 	Future

4.6 Additional LMI Initiatives

In addition to the Statewide 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").

4.6.1 New York State Healthy Homes Value-Based Payment Pilot

The Healthy Homes Value-Based Payment ("VBP") Pilot seeks to develop a framework that allows New York's managed care organizations ("MCO") to fund residential healthy homes interventions⁹² as part of their value-based payment arrangements with

⁹² 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 asthma (*e.g.*, ventilation, moisture/mold mitigation, carpet removal), and includes additional measures

healthcare providers within the Medicaid Healthcare Delivery System.⁹³ By validating impacts such as healthcare cost savings and benefits to residents, and by providing market development support, including specification of services and guidance related to VBP contracting, the Healthy Homes Pilot facilitates the adoption of healthy homes treatments by MCOs as part of their Medicaid VBP Arrangements that incorporate social determinants of health. Adopting this approach addresses avoidable medical costs associated with respiratory conditions such as asthma and also household injury, while encouraging third-party capital investment in residential energy efficiency through MCO adoption of healthy homes interventions within the VBP social determinants of health framework after the completion of the Pilot.

Approved in 2019, the Pilot is currently in the field, taking place during 2021-2024, with NYSERDA and NYS DOH collaborating to implement healthy homes interventions in 500 Medicaid member homes and jointly evaluating the associated reduction in Medicaid cost savings and benefits for residents. Responsibilities for each agency include:

- NYSERDA
 - 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 and residential improvement contractors to implement healthy homes interventions as well as provide guidance related to the VBP SDH contracting process
- 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

aimed at home injury prevention (smoke and CO 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.

⁹³ New York State Medicaid has transitioned the managed care healthcare delivery system from a fee-forservice to a VBP model that links healthcare provider performance and reimbursement through a predetermined set of value metrics. Under the VBP model, MCOs (*i.e.*, healthcare plans such as Empire Blue Cross Blue Shield) enter into arrangements with healthcare providers or provider networks. To support local investment in activities that address social determinants of health ("SDH"), two of three VBP arrangement levels require incorporation of a CBO engaging in work focused on 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.

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

• Center for Environmental Health will advise Pilot intervention planning and evaluation activities related to home injury prevention measures

NYSERDA and the NYS DOH targeted the Pilot launch for late 2020, but due to complications of the COVID-19 pandemic, field launch was delayed until 2021. The Pilot schedule may need to be further amended due to current and potential future impacts of the COVID-19 pandemic. The budget and impacts for the NYS Healthy Homes VBP Pilot can be found in <u>Appendix C</u>.

Objectives:

- Develop a framework that allows New York's MCOs to fund residential healthy homes interventions in partnership with energy/residential improvement contractors as part of their value-based payment arrangements with healthcare providers within the Medicaid Healthcare Delivery System
- Validate healthcare cost savings and benefits to residents—including energy, health, and safety—through evaluation undertaken in partnership with NYS Department of Health
- Support residential market preparedness for incorporation of healthy homes interventions into the Medicaid Healthcare Delivery System standard business practice, including specification of services and guidance related to VBP contracting
- Encourage third-party capital investment in residential energy efficiency with MCO adoption of healthy homes interventions supportive of addressing social determinants of health through VBP beyond the Pilot

Overview		
Status Prior to new Statewide LMI Portfolio Offering	In New York State, the Medicaid transition to a VBP framework, along with an existing infrastructure to deliver healthy homes services, provides a window of opportunity for healthy homes interventions to be considered a fundable healthcare expense. To aid in the VBP transition, DOH is required to administer pilots in cooperation with MCOs to test VBP models incorporating work addressing social determinants of health such as substandard housing. There is a current network of over 200 energy efficiency contractors in New York State, including more than 50 weatherization sub-grantees, who meet the conditions necessary to provide Medicaid services under VBP Level 2 and 3 Arrangements.	
	In 2019, NYSERDA conducted a feasibility study to explore the potential for developing an integrated energy, housing, and health service delivery model for LMI customers in New York. The feasibility study assesses the statewide infrastructure available to deliver an integrated approach, assesses available funding and identifies alternative sources of funding that can be used for integrated energy, housing, and health projects, and provides recommendations for how to quantify and validate the health benefits and healthcare cost savings associated with healthy homes interventions. Information from the feasibility outcomes informed the Pilot's partnership approach and design.	
Transitional Phase	The Pilot's interim process learnings demonstrate a path for New York's MCOs to fund residential healthy homes interventions as part of their value- based payment arrangements with healthcare providers within the Medicaid Healthcare Delivery System. Interim Pilot outcomes confirm the benefits of MCO investment in the demonstrated approach. Market support guidance clarifies the partnerships and infrastructure needed to replicate the model.	
Full Implementation	The Pilot demonstration, market support guidance, and associated evaluation activities, undertaken in partnership with NYS DOH, provide market actors with information intended to stimulate market uptake. Adopting the intervention approach addresses avoidable medical costs associated with respiratory conditions such as asthma and also household injury, while simultaneously facilitating third-party capital investment in residential energy efficiency. Validated healthcare cost savings, return on investment, and benefits to residents—including energy, health, and safety— encourages MCO adoption of healthy homes interventions within the VBP social determinants of health framework after the completion of the Pilot.	

Target Market and Delivery Method

Market	Managed care organizations (<i>i.e.,</i> health plans) operate within the
Segment	Medicaid Healthcare Delivery System, contracting with healthcare
Addressed	service providers within the value-based payment framework to
	provide clinical care and other health-related services to Medicaid
	members
	• Energy efficiency/weatherization contractors provide energy
	efficiency and health and safety services and subcontract for
	additional environmental trigger reduction services, as needed, in
	residential dwellings within a given region
	 Health service provider networks (<i>e.g.</i> physicians, hospitals, nursing
	and community health worker agencies) operate within the Medicaid
	Healthcare Delivery System to provide health services such as clinical
	care, in-home education, and referrals to community-based resources
	that address social determinants of health
	• Residents/customers (<i>i.e.</i> , Pilot participants that are high Medicaid
	utilizers) follow their clinical care plans and participate as necessary in
	the coordination of health service and dwelling service interventions
Delivery	NYSERDA implements the Pilot in cooperation with the NYS DOH Office
Method	of Health Insurance Program, Office of Public Health, and Center for
	Environmental Health according to the responsibilities outlined in the
	introduction of <u>Section 4.6.1</u>
	• Participating MCOs identify eligible members and conduct outreach to
	potential participant households
	• The Pilot intervention's dwelling-based services are provided by
	NYSERDA-participating residential contractors qualified through a
	NYSERDA Request for Qualifications
	 The Pilot intervention's health services are provided by registered nurses
	and community health workers with specialized training who are
	affiliated with agencies that are partnered with participating MCOs
	through value-based payment arrangements
	Program administration/implementation and technical assistance are
	provided through existing NYSERDA and DOH program operations
	infrastructure

Eligible Measures and Incentive Structure

Eligible	Full intervention measures include:
Measures	Residential energy and environmental assessment
	• Energy efficiency measures (<i>e.g.,</i> envelope improvements, electric load
	reduction, heating system repair/replacement)
	• Environmental trigger reduction measures (<i>e.g.,</i> mold remediation,
	carpet removal, integrated pest management, ventilation)
	• Household injury prevention measures (<i>e.g.,</i> smoke alarms, carbon
	monoxide detectors, stair/railing repair, bathtub safety bar installation)

	 Home skilled nursing visits and community health worker support (<i>e.g.,</i> in-home education related to asthma self-management and medication adherence, supportive products, and coordination across providers) Resident education, guidance regarding community resources, and post-intervention follow-up
Incentive Structure	 All intervention services are provided at no cost to a Pilot-participating household. Intervention dwelling-based services utilize an incentive structure based on existing NYSERDA residential programs (<i>e.g.</i>, EmPower NY) For planning purposes, average cost per project was estimated at approximately \$12,000, with flexibility in per-project cost determined according to scope of work evaluated by program staff Additional allergen reduction products provided to Pilot participating households are valued at approximately \$250 per household, facilitated through a contract with American Lung Association

Stakeholder / Market Engagement

Key Partners	 NYSERDA has worked closely with the NYS DOH Office of Health Insurance Programs (inclusive of Medicaid), Office of Public Health, and Center for Environmental Health to identify the Pilot opportunity and position it in the most beneficial way for both NYSERDA and DOH In coordination with NYS DOH, NYSERDA has engaged with MCO executive staff who expressed interest in incorporating healthy homes interventions into their existing Value-Based Payment Arrangements or entering into new Arrangements based on the need for healthy homes services among their Medicaid members NYSERDA engaged representatives of the residential energy efficiency industry—including private contractors and weatherization subgrantees, local housing organizations, community-based organizations, and philanthropy on this specific Pilot opportunity and have received universal support for this Pilot work In coordination with New York State Department of Public Service, NYSERDA hosted seven stakeholder forums in 2018 to discuss barriers and opportunities to increase energy efficiency and access to clean energy solutions for LMI residents. The need for health and safety improvements was a primary barrier raised by stakeholders.

Key Milestones (2022-2024)

Implementation milestones are noted below. The Program Administrators note that any continuing effects of the COVID-19 pandemic may modify implementation milestones.

Year	Milestone	Status
2022	• Complete value-based payment participation toolkits for MCO/VBP providers and community-based organizations	In Progress
	Commence interim reporting on Year One intervention implementation process	Planning
2024	Complete draft of the full evaluation report	Planning

5. Customer Awareness, Outreach & Engagement

Awareness and education initiatives 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 cultural diversity, unwillingness of homeowners 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, the Program Administrators have and will continue to design and implement strategies to overcome the challenges of engaging LMI customers and affordable property owners.

Utilities continue to identify supplemental activities to support LMI initiatives. These include distribution activities through food banks and other LMI distribution activities that also cross-promote EmPower NY and AMEEP. These programs are shown in the Budgets and Targets Tables within the Customer Awareness, Outreach and Engagement Activities section and those that are active are defined in more detail in the Annual Report.

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

• 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 Program Administrators recognize the diversity of LMI New Yorkers and are focused on establishing an outreach campaign that is inclusive. To achieve this, community partners will continue to be engaged to help assist in raising customer awareness of the benefits of participation.

• 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 has been designed to help customers understand the participation process and benefits of taking action.

• Provide Easy Access to Participation

The initiatives will continue to be designed with ease of customer application and participation in mind. Contractor information will be made available quickly for those customers seeking assistance after an application is submitted for one or more initiatives.

Through multiple delivery channels, the Program Administrators continue to deliver initiatives that address the overall strategic development and coordination of Customer Awareness, Outreach and Engagement initiatives. These initiatives continue to build on existing program experience and provide a comprehensive and integrated statewide approach that include the following key initiatives:

- 1. LMI Portfolio Marketing
- Statewide branding, including an initial marketing campaign launched in February 2022
- Centralized NY Energy Advisor website providing online information on energy efficiency and clean energy, financial assistance, and information on how 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
- Delivery of community-based marketing and paid advertising
- 2. <u>Community-Based Outreach, Education, and Engagement Partnerships</u>
- An enhanced network of statewide, community-based partners to leverage the customer outreach and engagement capabilities of LMI stakeholder organizations and contractors
- Community Energy Engagement Program ("CEEP") and Regional Clean Energy Hubs
- 3. <u>Community-Based Customer Engagement Initiatives</u>
- Delivery of community-based partnerships that combine distribution of low-cost energy efficiency measures with education about energy efficiency and clean energy and information on how to participate in other Portfolio programs
- Neighborhood-based delivery model

This comprehensive approach will continue to allow the Program Administrators to reach residents and communities with opportunities for improving energy affordability,

accessing clean energy solutions, improving awareness and education of clean energy opportunities, connecting with essential services,⁹⁴ and otherwise accessing the full range of benefits of the clean energy economy.

The following sections provide further information on the featured elements listed above.

5.1 LMI Portfolio Marketing

Statewide LMI Portfolio marketing includes four broad elements: (1) statewide branding; (2) the NY Energy Advisor website; (3) branded hard-copy program outreach and informational materials to complement the online NY Energy Advisor website; and (4) delivery of community-based marketing and paid advertising.

Statewide Branding

Statewide branding for the Portfolio has been developed by the Program Administrators to provide a consistent foundation for marketing and engagement activities. Just as the evolution of appropriately harmonized statewide program design elements can increase effectiveness in program delivery by reducing confusion, statewide branding provides more consistent messaging and increased awareness of the Statewide LMI Portfolio. Statewide branding efforts leading customers and affordable housing owners to initiatives and services will contribute to the success of the Portfolio. Statewide branding will be used in conjunction with localized marketing implemented by the Utilities in their respective territories.

Key considerations in effective statewide branding include development of 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 Program Administrators launched the initial full paid marketing campaign for the NY Energy Advisor in early 2022. 2022 will be used as a benchmark year to set measurable metrics for future years. The marketing campaign will be calibrated, when necessary, based on results from metric evaluation. Materials will be adjusted and updated based on evaluating paid media, stakeholder, and customer feedback. By coordinating on statewide branding and marketing campaigns, the Program Administrators have created cost efficiencies in increasing awareness of the Portfolio.

⁹⁴ 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.

NY Energy Advisor

In 2021, the Program Administrators developed and launched a web-based customer hub platform, called NY Energy Advisor, to provide streamlined, easy access to information about LMI initiatives and services for LMI customers, affordable multifamily property owners and managers, contractors, and stakeholders throughout the state. The NY Energy Advisor is designed to provide clear, consistent, and easy-to-find information on relevant LMI programs and services, including energy efficiency, renewable energy, and energy education materials. This is expected to reduce customer, contractor, and stakeholder confusion. The NY Energy Advisor website will continue to evolve over time into an effective and trusted source for those who use it. This will ideally improve customer satisfaction, Portfolio awareness, and program participation.

The costs for marketing, advertising, consumer perception/awareness surveys, and maintenance of the NY Energy Advisor are shared by the Program Administrators. The cofunding agreement to pay for these costs was based on the approved cost sharing method used by the Technical Resource Manual ("TRM") Committee.⁹⁵ 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 was developed and executed between NYSERDA and each of the Utilities that delineated the process for reviewing details related to the marketing and maintenance of NY Energy Advisor. NYSERDA will continue to take the lead with marketing and maintenance, engaging a contractor to provide the necessary work. The agreement set in place cost sharing responsibilities, a process to review details of the campaign, costs associated, and how and when reimbursements to NYSERDA will be made.

Hard Copy Customer Education Collateral and Multilingual Communications

While the online NY Energy Advisor is a critical resource for providing information to LMI customers, approximately 7% of adults nationwide, of which 25% are aged 65 and older,⁹⁶ 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

⁹⁵ 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 the TRM Administrative Vendor on board.

⁹⁶ Pew Research Center – April 2,2021 "7% of Americans don't use the internet and who they are"

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, NYSERDA's customer service center, or a community-based partner organization to receive assistance in applying for participation. Currently, collateral is available in several languages (to date, English, Chinese, Russian, and Spanish).

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 may look to leverage their community-based partners' relationships with local media and ability to garner earned media to promote programs.

Additional local 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
- Direct mail/email campaigns tailored to 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

Objectives:

- Provide consistent messaging statewide
- Develop clear, concise messaging 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
- Provide streamlined, easy access to LMI initiatives and services for LMI customers, affordable multifamily property owners and managers, contractors, and stakeholders throughout the state
- Complement the NY Energy Advisor website with written materials that provide similar branded messaging about Portfolio offerings
- Identify and develop solutions to overcome barriers of engaging LMI customers and other stakeholders
- Raise LMI customer awareness about Portfolio initiatives and services

• Establish inclusive outreach campaign that reflects the diversity of LMI New Yorkers

Overview

Status Prior to New Statewide LMI Portfolio Offering	Statewide Branding NYSERDA managed statewide branding efforts for a range of programs, including primarily EmPower, AHP, MPP, and FlexTech. The Utilities did not have statewide branding prior to the new Statewide LMI Portfolio Offering, given that any Utility-specific programs and initiatives did not extend beyond their own service territory. A statewide branding approach therefore represented a significant opportunity in the transition to the Statewide LMI Portfolio.
	NY Energy Advisor Prior to launch of the NY Energy Advisor, there was no equivalent one- stop customer website for LMI programs statewide. NYSERDA and each of the Utilities had websites with appropriate information and links for the particular programs they offered.
	Hard Copy Customer Education Collateral and Multilingual
	Communications The Program Administrators separately developed and distributed hard copy customer education collateral. The Program Administrators generally provided such material in several languages.
	Community-Based Marketing and Paid Advertising Each of the Program Administrators engaged in separate local community-based marketing and paid advertising.
Transitional	Statewide Branding
Phase	In the 2020 Implementation Plan, the Program Administrators identified the development of a statewide brand for the LMI Portfolio as an objective. In the continuing development since the filing of the 2020 Plan, the Program Administrators have shifted focus from developing a single brand for the whole Statewide LMI Portfolio to the topic of statewide branding by program. The following programs currently use statewide branding: EmPower, AHP, AMEEP, and FlexTech. NY Energy Advisor and its marketing campaign represents an additional statewide branding effort and name.
	NY Energy Advisor The full New York Energy Advisor website was developed and launched in 2021, replacing the interim website. This is a platform that offers streamlined access to initiatives and services for LMI customers, affordable multifamily property owners and managers, contractors, and stakeholders throughout the state. The NY Energy Advisor is designed to provide clear, consistent, and easy-to-find information on all relevant

	 LMI initiatives and services, including energy efficiency, renewable energy, and energy education materials. This website is expected to reduce customer, contractor, and stakeholder confusion and the need to search for assistance on multiple websites. Hard Copy Customer Education Collateral and Multilingual Communications In addition, collateral materials will be developed and made available for community and utility advocates. Material is provided in several languages (to date, English, Chinese, Russian, and Spanish).
	Community-Based Marketing and Paid Advertising Individual Program Administrators are continuing to develop and implement community-based marketing and paid advertising efforts.
Full	Statewide Branding
Implementation	Some statewide branding that is currently in market is planned to continue in market in the Full Implementation Phase, <i>e.g.</i> , AMEEP, FlexTech, and NY Energy Advisor. One major statewide branding update will be the transition of the current EmPower and AHP brands into the new, combined EmPower+ brand, slated for launch in 2023.
	A key focus of statewide branding is to effectively complement individual Utility and more localized marketing efforts.
	NY Energy Advisor
	The NY Energy Advisor website has been launched and is currently serving the market. The site provides: • Information on the Portfolio offerings
	Links to program intake forms
	Contact information on how to access community outreach
	 representatives (see <u>Section 5.3</u>, below) Links to other programs and resources, as appropriate for the audience
	audienceAccess to information in multiple languages
	A tool kit containing resources for stakeholders is located on the LMI Resource Page. ⁹⁷ The toolkit includes downloadable fact sheets, posters, and social media information all to be used by stakeholders to promote the NY Energy Advisor and in turn, programs and services for LMI customers and affordable property owners. A tutorial video

⁹⁷ <u>https://www.nyserda.ny.gov/All-Programs/Low-to-moderate-Income-Programs/LMI-Stakeholder-Resources-New-Efficiency-New-York</u>

demonstrating how to use the NY Energy Advisor website was launched and is available for use. ⁹⁸
In the future, the Program Administrators will aim to increase market awareness and use of NY Energy Advisor. The site will also be adjusted and updated based on evaluation of paid media, stakeholder, and customer feedback.
Hard Copy Customer Education Collateral and Multilingual Communications Program Administrators will work to provide consistent hard copy customer education collateral, and multilingual communications to reach identified customer demographic groups.
Community-Based Marketing and Paid Advertising Program Administrators will continue to develop and deploy community-based marketing and paid advertising as effective complements to other marketing and engagement efforts.

Target Market and Delivery Method

Market Segment Addressed	LMI customers, affordable multifamily property owners and managers, contractors, and stakeholders throughout the state
Delivery Method	NY Energy Advisor website, hard copy collateral, paid advertising, community engagement

Stakeholder / Market Engagement

Key Partners	Community-based organizations

⁹⁸ Stakeholders, regulators, and others may review the tutorial to understand how the NY Energy Advisor works or to help answer questions a customer might have, including in response to call center inquiries.

Key Milestones (2022-2024)

Year	Milestone	Status
2022	 NY Energy Advisor: Launch a marketing campaign for the NY Energy Advisor in Q1 2022 that will continue through 2025 	In Progress
	 Hard Copy Customer Education Collateral and Multilingual Communications: Develop and distribute to stakeholders hard copy customer collateral beginning in Q1 2022 in parallel with operation of the online NY Energy Advisor, to ensure consistent messaging and calls to action and to streamline development costs. Materials available in multiple languages include posters and fact sheets. 	
	 Community-Based Marketing and Paid Advertising: Specific media and paid advertising approaches will be developed and coordinated with the statewide campaign and as initiatives are added/changed in the Portfolio. 	
2023	 NY Energy Advisor: Review NY Energy Advisor analytics determining effectiveness of marketing campaigns Make adjustment to paid media campaigns if needed Continue to support the Program Administrators and stakeholders' efforts to obtain earned media 	Future
2024	 NY Energy Advisor: Continue to analyze NY Energy Advisor marketing campaigns. Make adjustments to the campaign. 	Future

5.2 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 is therefore important for Program Administrators 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, leverage workforce development opportunities, and identify services necessary to undertake energy efficiency projects.

Expansion of Existing LMI Community Partnerships

NYSERDA will establish Regional Clean Energy Hubs ("Hubs"), one in each of the ten economic development regions across the state, with the exception of the New York City region where up to three hubs will be established, to assist communities and residents with accessing clean energy programs and solutions. Investment in the establishment of Hubs is intended to build capacity at the local level and position disadvantaged communities to participate in and benefit from the clean energy economy.

Objectives:

- Increase awareness of and access to clean energy solutions and opportunities
- Increase consumer uptake of clean energy projects, with support for accessing wraparound (non-energy) services and resources
- Advance local capacity to engage with community members about clean energy policy, technologies, and opportunities
- Increase public participation in energy planning and program coordination activities
- Increase partnerships with clean energy partners, affordable housing providers, non-energy partners, third-party funding providers, philanthropic organizations, etc. that result in scalable activities and projects
- Increase the diversity of participating contractors in the clean energy sector
- Support career pathways for individuals currently residing in disadvantaged communities or from priority populations, through partnerships with training, education, and clean energy businesses for employment opportunities in the clean energy workforce

Overview

Status Prior to new	NYSERDA administers the Community Energy Engagement Program
Statewide LMI	(CEEP), launched in 2017 across New York State, which provides
Portfolio Offering	resources for Community Energy Advisors to:
	 Enable participants to make informed energy decisions
	 Inform participants of financing options for energy efficiency and renewable energy projects and products
	 Guide participants through the process of implementing a clean energy project
	 Connect participants with the right energy contractors who can implement clean energy projects
	Through the CEEP, NYSERDA awarded approximately \$5.5 million to deploy Community Energy Advisors ("CEA") to conduct outreach and engagement activities to residents, small businesses, and multifamily building owners, with an emphasis on LMI households and communities.

Transitional Phase	CEEP expanded the reach of NYSERDA programs throughout the entire State to incorporate a regional approach, thus providing geographic alignment with other State efforts and full statewide coverage. Ten (10) locally based and constituency-based organizations were deployed statewide. NYSERDA conducted a co-design process with 30 community partners in
	2020 to get input and improve outreach and engagement within disadvantaged communities.
	To support a teaming arrangement and to facilitate partnerships in the delivery of the Hub services, a web-based Clearinghouse was made available in 2021 on NYSERDA's website for organizations to express their interest.
	Current CEEP contracts extended to June 30, 2022 to provide continuity and avoid interruptions in outreach and engagement services until the Regional Clean Energy Hubs initiative launches. The Regional Clean Energy Hubs RFP 4630, which builds on previous community-based outreach and engagement efforts, commences in Q3 2022.
Full	The Regional Clean Energy Hubs will:
Implementation	 Act as a trusted local resource for community members to learn more about the energy-related programs and services available to them Increase awareness of these programs and services by leveraging the expertise and trust of local community organizations - particularly those with a proven track record of engaging disadvantaged communities Develop outreach and engagement strategies to elevate the needs of communities and residents into program and policy development Address gaps in and advancing diversity of the clean energy workforce by connecting residents with educational, training, and job opportunities and small businesses with resources to support economic development

Target Market and Delivery Method

Market Segment Addressed	Homeowners, renters, contractors/builders, affordable property owners, small commercial entities and nonprofits with an emphasis on disadvantaged communities
Delivery Method	 Hubs will deploy Energy Advisors within each region to connect community members to clean energy and related programs and resources Hubs will Implement community campaigns and local projects and pilots

Stakeholder / Market Engagement

Key Partners	Key community-based partners will play an important role with the Regional
,	Clean Energy Hubs and generally include:
	CBOs
	Local, state, and federal agencies
	 Regional Economic Development Councils ("REDCs")
	Ecumenical organizations and communities
	Philanthropic organizations
	 Low-income and affordable housing advocacy groups
	Community coalitions and associations
	Homeowner and tenant associations
	Educational institutions
	Corporations and trusts
	Banks and financial institutions, particularly community
	development financial institutions ("CDFIs")
	• Environmental, health, and energy efficiency advocacy groups
	(national, statewide, and local)
	• Skilled trade groups, unions, and engineering societies
	Retailers and installation contractors
	• Community event organizers (fairs, home shows, etc.)
	 Small businesses and Business Improvement Districts ("BIDs")
	Utilities

Implementation Milestones (2022-2024)

Year	Milestone	Status
2022	 Regional Clean Energy Hub network will be launched in Q3 2022 incorporating input from the co-design process with community partners in 2020 to improve the reach and impact of outreach and engagement within disadvantaged communities 	In Progress
2023	 Hubs fully onboarded in the market and working with local communities to support and streamline program engagement 	Future
2024	Hubs to begin launching community campaigns and local pilot programs	Future

Budgets, Targets and Performance Metrics

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

5.3 Community-Based Customer Engagement Initiatives

Utilities will continue to seek partnerships with organizations who directly or indirectly serve or advocate on behalf of the LMI community. Utilities will continue to engage eligible LMI customers through customized educational efforts and the distribution of free or discounted direct install measures directly or through trusted local organizations. These engagement initiatives provide customers with easy access to energy efficiency information, promote proven technology (*e.g.*, installation of 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.

Utility sponsors of such programs partner with organizations that provide 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.⁹⁹ Types of initiatives include:

- Working with local food banks to distribute LEDs to low-income customers
- Distributing energy efficiency kits to customers participating in 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
- Distributing HERs to LMI customers with customized energy efficiency recommendations

As part of the LMI JMC, the Program Administrators share experiences and lessons learned from offering these initiatives with each other. Currently, utilities are in different stages of design and implementation of these programs. Some utilities are currently running these programs and will continue to do so. Utilities that are in the process of developing such programs will continue the development process and launch new programs. Other utilities will begin strategy and design work to develop an offering. Throughout 2022, the Program Administrators will work together to share insights into these different programs and explore further coordination on similar initiatives.

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

⁹⁹ Sponsoring utilities will avoid distribution of unsolicited measures, which can lead to low installation rates and customer complaints.

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.

Objectives:

- 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
- Build relationships with participating community-based partners, leading to their participation in promoting other Statewide LMI Portfolio programs

Overview

Status Prior to	Community-Based Customer Engagement Initiatives
new Statewide	Prior to the new Statewide LMI Portfolio offerings, several utilities had
LMI Portfolio	community-based customer engagement initiatives.
Offering	
	In 2020, Con Edison distributed energy efficiency kits to customers

participating in Con Edison's Low Income Discount Program, which provides bill assistance. Kits contained LED lightbulbs, two faucet aerators, and a low-flow showerhead. Con Edison also collaborated with food pantries and Techniart to distribute LEDs to low-income customers. Further, Con Edison distributed home energy reports ("HERs") to LMI customers, providing education on energy usage in the home and tips for reducing consumption. Con Edison also created an advertisement on Fresh EBT, a free app that recipients of the Supplemental Nutrition Assistance Program ("SNAP") can use to help manage their benefits, to increase energy efficiency awareness.
Since 2016, Central Hudson's Community Lighting program has partnered with support agencies throughout its service territory including local United Way chapters, food banks, food pantries and departments of social services to provide ENERGY STAR certified LED bulbs to Central Hudson qualified, limited-income families at no cost. Over 30 organizations distributed 35,000 LED bulbs to low-to-moderate income community members through 2020.
In 2020, Orange & Rockland partnered with food banks to distribute 7,704 LED light bulb kits. The kits included messaging to educate customers about energy efficiency and included a link to Orange & Rockland's EmPower webpage to drive awareness of the program. While this program benefited LMI customers, the savings and budgets related to this effort were reported under Orange & Rockland's electric portfolio.
Neighborhood-Based Delivery Model In 2019, National Grid and NYSERDA partnered to implement a project to test a neighborhood-based delivery model for energy efficiency services. The Watertown Energy Fair was hosted by National Grid and NYSERDA in 2019 in Watertown, NY as a one-day event held in the community that aimed to provide a holistic experience for customers to access clean energy and energy affordability solutions.
In 2019, Orange & Rockland and NYSERDA partnered to test a neighborhood-based delivery model for energy efficiency services. Orange & Rockland and NYSERDA hosted two events at the YMCA Center for Youth Programs in Middletown, NY. The first event, the Halloween Middletown Festival, was held in October 2019 and was used to pre-register eligible customers for EmPower and invite them to the second event, the Middletown Energy Fair. The Middletown Energy Fair provided an additional opportunity to reach a targeted number of income-eligible customers while also providing various energy savings opportunities and educational materials to the community at large. These events were strategically offered in areas that had a significant number of income-eligible customers, and enabled direct engagement

	opportunities with customers.
Transitional Phase	Community-Based Customer Engagement Initiatives In 2021, Con Edison distributed kits to customers participating in Con Edison's Energy Affordability Program (formerly the Low Income Discount Program). This program was transitioned be opt-in for customers, and was re-launched in September 2021 with an online portal where eligible customers were able to claim a kit. Con Edison also collaborated with food pantries to distribute LEDs to low-income customers.
	In 2021, Central Hudson transitioned the Community Lighting program from their market rate portfolio under the Statewide Low-to Moderate- Income Portfolio. Due to the ongoing pandemic, we were unable to distribute LEDs throughout 2021. Since Central Hudson was unable to distribute LEDs in 2021, efforts were directed towards adding additional partners to the distribution network and designing packaging materials to include with the LEDs. A printed sleeve was added to the packaging, highlighting the ENERGY STAR LED contents and providing guidance on payment assistance programs such as EmPower NY, HEAP and other Low-Income Bill Discount programs offered.
	In 2021, NFGDC provided 10,000 weatherization kits to area block clubs, community-based organizations, and area non-profits. Although this program benefited LMI customers, the funding related to this effort came from non-LMI sources, so associated savings and participant numbers are not included in this Plan. The pandemic created a need to promote greater awareness of newly implemented payment assistance programs, the HEAP Residential Supplement Plan and the NYS Emergency Rental Assistance Program. NFGDC created a slip sheet that was placed into a door hanger for customer homes to alert customers of the various assistance programs that are available and urging a phone call if anyone was struggling to pay their bill.
	In 2021, National Grid launched its Food Bank LED program to increase awareness of programs and services available to its customers and to encourage customers to utilize them. National Grid developed a partnership with the local Buffalo area food bank as well as NYSEG to distribute LED lightbulbs and brochures that contained information on energy efficiency and payment assistance programs such as EmPower NY, HEAP, National Grid's Energy Affordability Program ("EAP") and assistance provided by National Grid's Consumer Advocates. National Grid and NYSEG partnered in this location due to their overlapping

	service territory to utilize resources most efficiently, create cost efficiencies and ensure there was no redundancy.			
	In 2021, Orange & Rockland partnered with food banks to distribute 13,392 LED light bulb kits. The kits included messaging to educate customers about energy efficiency and included a link to Orange & Rockland's EmPower Webpage to drive awareness of the program. While this program benefited LMI customers, the savings and budgets related to this effort were reported under Orange & Rockland's electric portfolio.			
	Neighborhood-Based Delivery Model NYSERDA completed an evaluation on the pilot in 2021 to determine the effectiveness of a neighborhood-based delivery model in reaching LMI customers, increasing participation and adoption rates. An analysis of this evaluation will occur in 2022 and findings and lessons learned will be used to inform future neighborhood-based delivery models and events to serve as a means of reaching LMI customers and easily getting them connected to energy efficiency and other social services. The planning of another in-person energy fair was de-prioritized in 2020 and 2021 due to the pandemic, but will be revisited in 2022 with the analysis of the evaluation results.			
Full	Community-Based Customer Engagement Initiatives			
Implementation	 Utilities plan to provide continued implementation of their initiatives going forward, allowing for regular and consistent engagement with the market. Further coordination and sharing of lessons learned by Program Administrators offering the same or similar initiatives will take place as all offerings reach their full implementation phase. Program Administrators will plan provide offerings as follows: Con Edison will continue to offer the opt-in kits offering and work with food pantries to distribute energy efficiency measures to customers. Central Hudson will continue to offer the Community Lighting program and distribute LED bulbs at no cost through partnerships with local not-for-profit organizations that serve low-income customers. This initiative will continue to target customers utilizing services from organizations such as the United Way and Food Panties. Additional information will continue to be provided with the LEDs to educate customers about energy savings, payment assistance programs, and the NY Energy Advisor. 			
	 National Grid will continue to work with foodbanks in its upstate NY territory to distribute LED lightbulbs and brochures containing information about energy efficiency and payment assistance programs and services. National Grid seeks to 			

continue close coordination with utilities overlapping with its service territory.
 NFGDC will continue to provide weatherization kits to area
block clubs, community-based organizations, and area non- profits.
 Orange and Rockland will expand their food bank kit offering
and provide energy efficiency kits via an opt-in approach to
customers participating in the Company's Energy Affordability
Program. Additionally, O&R will expand the existing MY ORU
Store ecommerce platform to include additional functionality
that offer new tools, products, and additional rebates that will
engage and guide LMI customers to make energy wise
decisions for their home.
Neighborhood-Based Delivery Model
Depending on the analysis of current pilot efforts, may make develop
and offer initiatives using the neighborhood-based delivery model.

Target Market and Delivery Method

Market	LMI customers
Segment	
Addressed	
Delivery Method	Information and measures distributed through community-focused methods and community organizations that are trusted and frequented by LMI customers. Measures may also be distributed directly from the utilities through program vendors.

Eligible Measures and Incentive Structure

Eligible Measures	Programs may include LED lightbulbs, energy efficiency kits (which may contain measures such as LED lightbulbs, low-flow showerheads, and faucet aerators), and other low-cost measures
Incentive Structure	Varies, but generally no cost to customers

Stakeholder / Market Engagement

Key Partners	Key partners include:	
	Food banks,School districts	
	Non-profits	
	Local community organizationsLocal public agencies	

Key Milestones (2022)

Year	Milestone	Status
2022	 Community-Based Customer Engagement Initiatives: Central Hudson plans to continue their Community Lighting program and will distribute LEDs through Food Banks and the United Way starting again in 2022. Con Edison will continue to offer energy efficiency kits via an opt-in approach to customers participating in Con Edison's Energy Affordability Program (formerly called the Low Income Discount Program) and to collaborate with food pantries to distribute LED lightbulbs. National Grid will expand their LED Food Bank program to the Albany and Syracuse area and increase frequency to twice per year with continued collaboration with NYSEG/RGE. Orange & Rockland will expand their food bank kit offering and provide energy efficiency kits via an opt-in approach to customers participating in the Company's Energy Affordability Program. Additionally, O&R will expand the existing MY ORU Store to present specific LMI customers with additional rebates for energy efficient products. 	In Progress
	 Neighborhood-Based Delivery Model: During the balance of 2022, 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. 	

begin	ning in 2022 after final evaluation results are	
deter	nined.	

6. Coordination with External Program Administrators and Other Organizations

In addition to 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.

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 Climate Act investment requirements
 DOH Develop an approach to quantify the here outcomes and healthcare cost reduction associated with energy efficiency impro Explore opportunities for developing a programmatic approach for addressing efficiency and healthy homes improvem low-income customers 	
NYS HCR	 Support the development of technical capacity and access to performance data (<i>e.g.</i>, 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 IPNA, in coordination with other key stakeholders including housing authorities; Exploring the development of underwriting criteria for high performance new

able 7: Summary of Statewide Coordination Efforts

	 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 Support mobilization of New York's \$289 million WAP funding allocation under the Bipartisan Infrastructure Law of 2021
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 ¹⁰⁰	 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.
PSEG Long Island	 Coordination between KEDLI's HEAT Program and PSEG Long Island's REAP program, where the Program Administrators exchange leads so customers can participate in both gas and electric energy efficiency programs Explore opportunities to more closely coordinate the AMEEP program with multifamily programs offered by PSEG Long Island
Long Island Power Authority	Coordination with LIPA through programming such as EmPower and HEAT to leverage statewide models

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

7. Benefit Cost Analysis

This section presents the results of the Benefit Cost Analysis (BCA) for the Statewide LMI Portfolio of initiatives.

¹⁰⁰ 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.

The Program Administrators calculated the BCA following the NYS BCA Framework¹⁰¹ and subsequent DPS guidance.¹⁰² A common approach was used to calculate the Portfolio BCA found in <u>Table 8</u> and Program Administrator-specific assumptions were used according to utility BCA handbooks.

The BCA results reflected in Table 8 will be refined as the initiatives are further developed. The BCA results for the Societal Cost Test ("SCT") include the benefits associated with reduced carbon emissions, calculated in line with the most recently updated values promulgated by the New York DPS in December 2021.¹⁰³ The carbon emission benefits included in the 2022 BCA were updated using the most recent inputs for calculation of carbon impacts based on communication with, and at the direction of, DPS Staff. Additionally, revisions to program design as well as the inclusion of new programs and measures also generated changes between the 2020 and 2022 BCAs. Portfolio BCA results are largely comparable for the Utility Cost Test ("UCT"), though there are changes for individual Program Administrators, and SCT results in 2022 are approximately 67% higher than those reported in 2020, which is largely driven by the updated carbon emission benefits inputs.

Portfolio-level BCA results are shown in Table 8.

_	Societal Cost Test (SC		CT)	Utilii	ty Cost Test (UC	T)
			Benefit			Benefit
	Benefits	Costs	Cost Ratio	Benefits	Costs	Cost Ratio
2022	\$215,029,797	\$258,279,575	0.83	\$111,311,285	\$152,296,309	0.73
2023	\$295,895,465	\$261,521,182	1.13	\$160,304,929	\$152,967,685	1.05
2024	\$334,613,039	\$285,663,034	1.17	\$183,749,880	\$166,157,984	1.11
2025	\$386,988,833	\$299,315,515	1.29	\$215,211,746	\$146,146,108	1.47
2026	\$155,304,952	\$137,101,783	1.13	\$89,752,333	\$48,146,083	1.86
2027	\$45,406,627	\$98,047,352	0.46	\$25,954,905	\$17,777,508	1.46
2028	\$13,661,876	\$9,450,895	1.45	\$7,927,563	\$6,613,693	1.20
2029	\$4,930,952	\$2,515,370	1.96	\$2,882,858	\$2,515,370	1.15

Table 8. Statewide LMI Portfolio BCA Results

¹⁰¹ 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).

¹⁰² Clean Energy Guidance CE-07: *Utility-Administered Energy Efficiency Utility Filing Requirement Guidance* (issued May 14, 2018).

¹⁰³ https://www.dec.ny.gov/docs/administration_pdf/vocapprev.pdf

8. Evaluation, Measurement, & Verification Approach

As described below, the Program Administrators take a coordinated approach to estimating savings and evaluating LMI initiatives. This includes 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 are detailed in the VGS Specifications, which are coordinated across the Program Administrators and are jointly filed.¹⁰⁴

8.1 Savings Estimation

In general, the Program Administrators will continue to 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 given the need to fully account for LMI customer 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 continue to be used:

Prescriptive

For prescriptive measures, details of existing conditions in LMI customer residences may be substituted for parameters in the TRM to calculate savings.¹⁰⁵ The TRM currently contains language describing this methodology. Further, program manuals such as the AMEEP Program Manual contain guidance for providing information about existing conditions to be used in savings calculations. Additionally, baseline studies or other evaluation materials will be leveraged, where available, 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 Statewide LMI Portfolio, either at a statewide or more granular level depending on availability of data and measure-specific characteristics.¹⁰⁶ Using evaluation and other research data to determine these average baseline values will promote coordination of evaluation methodologies amongst Program Administrators

¹⁰⁴ The initial VGS Specifications were filed in December 2020. NE: NY Proceeding, Consolidated LMI VGS Specifications (Filed December 14, 2020). Updated VGS Specifications are being filed concurrently with this Implementation Plan.

¹⁰⁵ <u>https://www.nyserda.ny.gov/All-Programs/Low-to-moderate-Income-Programs/LMI-Stakeholder-</u> <u>Resources-New-Efficiency-New-York/NYS-Affordable-Multifamily-Energy-Efficiency-Program</u>.

Technical Resource Manual, Version 9 - Filed October 27, 2021 (effective January 1, 2022), p. 5, "Application of Methods for Low- and Moderate-Income (LMI) Residential." <u>https://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/72c23decff52920a85257</u> <u>f1100671bdd/\$FILE/NYS TRM V9.pdf</u>

¹⁰⁶ 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.

(discussed in further detail below), and will allow for increased savings accuracy while minimizing the burden of customer data collection. 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 are to be used until new information becomes available through evaluation 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 VGS Specification processes.¹⁰⁷ As baseline assumptions become available, they will be documented in VGS Specifications, incorporated into programs, and, through coordination with the TRM MC, documented in the TRM.

Custom

For custom measures, project-specific existing condition baselines are used. Analyses of current custom calculation tools, such as EmPCalc, ¹⁰⁸ 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 Performance Metrics Planning

In <u>Section 2.5</u>, above, the Plan addresses Performance Metrics for the Statewide LMI Portfolio, including <u>Table 1: Portfolio Objectives and Performance Metrics</u>. As noted in Table 1, for certain of the metrics, EM&V is a key component, including the below:

Portfolio Customer Experience			
Increase customer Portfolio awareness	Percentage of LMI customers that learn about Portfolio initiatives from various sources (<i>e.g.</i> , 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		

As such, a key component of EM&V-related planning will be addressing these (and possibly other) performance metrics.

¹⁰⁷ 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 Specifications will be coordinated as well.

¹⁰⁸ EmpCalc is a custom modeling tool used by NYSERDA.

Program Administrator EM&V team activity to research and evaluate performance for these metrics may include the following:

- Surveys
- Coordination with EM&V contractors to study and determine outputs for the factors
- For the three Portfolio Customer Experience performance metrics, the third-party evaluator chosen for the statewide evaluation will determine the methods for calculating the metrics in coordination with the Program Administrators.

8.3 VGS Specifications

The Program Administrators have continued to undertake VGS activities since the 2020 Implementation Plan filing, including continued development and revisions of the VGS Specifications. The VGS Specifications for the Statewide LMI Portfolio are organized into four sections: Existing 1-4 Family Homes; Existing Affordable Multifamily Buildings, Affordable New Construction, and Additional LMI Initiatives. Key activity and issues for each of these categories is described in the Overview table below; additional information and detail is provided in the VGS Specifications.

8.4 General Approach to Evaluation of Initiatives

Evaluation activities for the Statewide LMI Portfolio are and will continue to 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 continue to be incorporated into the PM&IP.

It is important to note that statewide evaluations may be difficult to implement for all programs given that each Program Administrator may have a unique Portfolio mix, and that Utilities have different rate case periods that inform evaluation cycles. Additionally, individual Program Administrators may have recently evaluated, or are currently evaluating, certain programs that include LMI customers. These factors will continue to inform each Program Administrator's evaluation priorities and schedule of activities.¹⁰⁹ Given this, the Program Administrators will continue work on non-program specific activities that will be able to provide meaningful insights across the State. As discussed earlier, this may include coordinated baseline studies, with longitudinal updates. This may also include research to assist in identification of LMI buildings and customers to

¹⁰⁹ 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.

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 continue to 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 development process for VGS Specifications, and results from the administrator's evaluation will continue to be used in the reporting of savings achieved. In the case of AMEEP, where Program Administrators are jointly operating the program using a statewide framework, the Program Administrators will collaborate to perform a statewide evaluation. This coordination will continue to be conducted as part of larger implementation arrangements at a program level and will be refined throughout 2022.

Collectively, these activities will continue to provide important insight needed in the short term to optimize 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 continue to identify specific opportunities for collaboration, focusing on activities where Program Administrators share customers and/or Implementation Contractors, or otherwise overlap. The Program Administrators will also continue to 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.

Overview

Status Prior to new Statewide LMI Portfolio Offering	Prior to the new Statewide LMI Portfolio offerings, each Program Administrator that had an existing LMI program has planned, conducted, and used results from program-specific EM&V studies, including realization rates. Reflecting ongoing operation of utility- and NYSERDA-administered programs and their associated evaluation efforts, program-specific realization rates will be used, where available, until an evaluation of the new statewide offerings can be completed.
	1-4 Family Homes: Prior to the new Statewide LMI offering, the 1-4 family homes LMI customer market segment was served by several programs across the state, with each Program Administrator running VGS activity independently for their program. Energy savings for EmPower NY and AHP were estimated from program-supported modeling tools used by contractors when conducting home energy audits. For custom measures, project-specific existing condition baselines were used.

	Due to recent and ongoing evaluation efforts, each utility- and NYSERDA- administered program is using program-specific realization rates for the 2020-2021 program years where available, as described in the VGS specs, until the launch and evaluation of the statewide initiatives.
	 In addition to Program Administrator-specific evaluation activities, the Program Administrators together have been: Working to develop a standardized series of survey questions for statewide use when conducting process evaluation research with LMI customers in 1-4 family homes by Q3 2022 Collaborating to develop statewide and regional average existing condition baselines, where appropriate, as facilitated through the TRM Management Committee. In Q3 2021, key 1-4 family home LMI measures were identified for further research.
	Multifamily: Each Program Administrator has planned, conducted, and used results from program-specific EM&V studies, including realization rates. Reflecting recent and ongoing evaluation efforts, each utility- and NYSERDA-administered program will be using program-specific realization rates, where available, for the 2020-2021 program years and until an appropriate time after the launch of the statewide LMI Multifamily Portfolio offering (AMEEP).
	New Construction: Among the Program Administrators, only NYSERDA administered a new construction program across the State, <i>i.e.</i> , the Affordable New Construction program.
	Additional LMI Initiatives: EM&V for the programs addressed in this specification is conducted separately by the Program Administrator. NYSERDA administers Healthy Homes and the Solar for All programs. Central Hudson's Community Lighting program provides LED bulbs to customers that utilize services from organizations such as United Way. Con Edison offers additional programming to its LMI customers through Food Bank Bulb Distribution ("Food Bank") as part of its Retail Lighting program. Similarly, National Grid offers a Food Bank LED Light Bulb Giveaway in their Niagara Mohawk Service Territory. Con Edison offers an Efficiency Starter program, which provides free kits of low-cost energy savings measures to LMI customers within their respective service territories. Since 2020, Con Edison has been sending focused messaging to LMI customers via Home Energy Reports (HERs).
Transitional Phase	With the transition to the Statewide LMI Portfolio, in December 2020 the Program Administrators developed and filed the four VGS Specifications for the Statewide LMI Portfolio. Since then, the Program Administrators have continued to coordinate closely regarding the application of results from recent EM&V activity to initiatives, to determine application to new

statewide offerings. Program Administrators are continuing to coordinate on EM&V activities in order to achieve program and cost efficiencies.
As the new Statewide LMI Portfolio offerings were being developed and implemented, the Program Administrators continued to conduct evaluations on their own programs that were already operational in the market. Given recent and ongoing evaluation efforts, each utility- and NYSERDA-administered program will use program-specific realization rates, where available, during the years they were operational.
In 2021, Program Administrators developed approaches for statewide evaluation of statewide programs, such as EmPower, EmPower+, and AMEEP, as described in the VGS Specifications. Until sufficient data becomes available to conduct these evaluations, Program Administrators have continued to work on activities that could provide statewide insights through evaluation. For example, the Program Administrators compiled survey questions for process evaluation research and have been standardizing the survey questions so they can be more comparable. The Program administrators will continue to refine those questions in 2022. Additionally, Program Administrators will work collaboratively to prepare workplans for these evaluations until there is sufficient data to conduct the evaluations.
In 2021, language was added to the TRM to specify that existing condition baseline parameters may be substituted for TRM baseline inputs when calculating savings for LMI residences. In addition to this alignment of prescriptive TRM calculations with LMI existing conditions, project-specific existing condition parameters can be used in custom savings calculations. Additional guidance on use of existing condition baselines in AMEEP is outlined in the AMEEP Program Manual.
1-4 Family Homes: For the EmPower NY program, the Program Administrators' EM&V teams have aligned on which evaluation results would be applied to each program year. The 2012-2016 evaluation results apply to the statewide program through 2020. The 2017-Q1 2019 evaluation is currently being conducted by NYSERDA, on target to be completed in Q2 2022, and the results will be applicable to the 2021 program year up until launch of the EmPower+ program. Upon launch of the EmPower+ program, a new evaluation will be conducted, and results will apply to the program from EmPower+ launch onwards.
Multifamily: The Program Administrators revised the VGS Specification for the multifamily sector to align with the development of the new Statewide multifamily program launched in November 2021 (AMEEP).
The Program Administrators have decided to evaluate AMEEP with a joint statewide evaluation, beginning with an evaluation of the 2022 program year in 2023. Upon completion of the AMEEP evaluation, those results will

	be retroactively applied beginning January 1, 2022. Until completion of this evaluation, the Program Administrators will use a 70% placeholder "adjustment factor" for internal statewide planning and forecasting purposes only. The Program Administrators will use company-specific evaluation results for multifamily programs run prior to AMEEP in 2020 and 2021. New Construction: Program areas offering incentives are undergoing Gross Savings Analysis for the program period 2017-2020. A contractor was procured by NYSERDA in Q1 2021 to perform this analysis. Details related to the Gross Savings Analysis methodology were submitted in an EM&V Plan in Q1 2021. The estimated completion of the Gross Savings Analysis report is
	Q1 2024. Additional LMI Initiatives: An impact evaluation for Con Edison's Efficiency Starter program is forthcoming, with an expected evaluation plan submission of Q3 2022. The final results are anticipated to be published by Q4 2023. Orange and Rockland's Efficiency Starter program will start in 2022. An initial impact evaluation was performed for Central Hudson's Community Lighting program for the 2018-2019 program year by Demand
Full	Side Analytics. The final Report was filed on July 1, 2021. Full implementation of EM&V will entail a fully coordinated Statewide
Implementation	EM&V approach, with a focus on achieving cost efficiencies and optimally leveraging information across Program Administrators. A foundational element of this statewide EM&V approach is the establishment of VGS Specifications that cover the EM&V activity and applications for all Program Administrators Statewide. Such specifications were developed and then initially filed in December 2020, and since that time, the Program Administrators have continued EM&V coordination and progress towards full implementation (including filing of updated specifications concurrently with this Plan).
	Per the VGS Specifications, in the case 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. In the case of AMEEP, where Program Administrators are jointly operating the program using a statewide framework, Program Administrators will collaborate to perform a statewide evaluation.
	Program Administrators plan to develop average existing condition baselines, facilitated through the TRM Management Committee, to allow for a uniform deemed savings approach for common prescriptive measures within the Statewide LMI Portfolio, either at a statewide or more granular level depending on availability of data and measure-specific characteristics.

1-4 Family Homes: As the 1-4 Family Homes programs are shifted from separate Empower NY and AHP programs to the combined Empower+ program, the Program Administrators will update the VGS activities and the VGS Specification to reflect this shift.
Multifamily: AMEEP was launched Statewide in November 2021. The Program Administrators will evaluate AMEEP with a joint statewide evaluation, with the aim of beginning an evaluation of the 2022 program year in 2023 if there is sufficient data. Evaluation efforts will continue to assess needs as the program evolves, such as any coordination between AMEEP and NYS Clean Heat.
New Construction: As additional New Construction initiatives are developed and implemented, necessary evaluation activities will be undertaken.
Additional LMI Initiatives: As Additional LMI Initiatives are developed and implemented, necessary evaluation activities will be undertaken.

Implementation Milestones (2022-2023)

Year	Milestone	Status
2022	 Continued ongoing meetings between Program Administrator VGS teams Refine and finalize standardized survey questions to be used when conducting process evaluation research Complete 2017-Q1 2019 evaluation of EmPower NY Program, on target to be finished by NYSERDA in Q2 2022 Begin to develop and implement average existing condition baselines, facilitated through the TRM Management Committee, and identify key LMI measures for further research 	In Progress
	 Select EM&V vendor for AMEEP evaluations to be undertaken in 2023 Assess impact of NYS Clean Heat coordination with AMEEP and any resulting evaluation needs 	Planning
2023	 Begin EmPower+ evaluation process Develop the workplan and conduct statewide evaluation for AMEEP, as operated in 2022 	Future

Appendix A: Budgets by Sector

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

Initiative	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Existing 1-4 Family	53 <i>,</i> 895	73,884	66,573	46,244	24,631	24,933	1,071					291,231
Homes												
Existing Affordable	17,732	24,817	61,706	85,662	102,206	74,403	21,998	4,548				393,071
Multifamily Programs												
Affordable New	2,130	3,813	7,709	14,355	21,945	25,488	24,405	16,848	6,572	2,500		125,763
Construction												
Customer Awareness,	3,583	1,029	9,163	13,052	12,458	11,630	10,039					60,955
Outreach &												
Engagement												
Pilots and			213	639	398	398	398	398				2,444
Demonstrations												
Beneficial	13	3,845	3,184	6,519	5,274	8,364	2,801					30,000
Electrification												
LMI Solar	1,283	895	1,300	1,300	1,248	1,200	1,187	1,100	1,100	1,100		11,713
Healthy Homes Pilot	921	285	2,150	3,075	3,075	284						9,790
Portfolio	809	1,376	3,910	4,877	5,773	5,984						22,728
Administration		,	,	,	,	,						,
Portfolio EM&V	509	669	2,217	3,096	3,212	2,392						12,094
Total	80,874	110,612	158,125	178,820	180,218	155,075	61,899	22,893	7,672	3,600		959,788

A.2 Portfolio Budgets Summary by Sector (\$000)

	Total	Percentage of Portfolio
Existing 1-4 Family Homes	\$ 291,231	30%
Existing Affordable Multifamily Programs (Including Multifamily-related Affordable New Construction)	\$ 503,887	52%
Affordable New Construction (non-Multifamily)	\$ 14,947	2%
Customer Awareness, Outreach & Engagement	\$ 60,955	6%
Pilots and Demonstrations	\$ 2,444	0%
Beneficial Electrification	\$ 30,000	3%
Additional LMI Initiatives	\$ 11,713	1%
Healthy Homes Pilot	\$ 9,790	1%
Portfolio Administration	\$ 22,728	2%
Portfolio EM&V	\$ 12,094	1%
Total	\$ 959,788	

A.3 Utility Incremental NE: NY Funding

	2020 - 2025
Incremental funding allocated to Affordable Multifamily	\$ 204,676,702
Total incremental funding	\$ 308,068,6296
Percentage of incremental funding allocated to Affordable	
Multifamily ¹¹⁰	66%

¹¹⁰ 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 2020 NE: NY Order. This funding does not include additional utility funding that will be transferred into the Statewide LMI Portfolio from Central Hudson, NFGDC, National Grid (KEDLI), NYSEG, and RG&E (refer to <u>Section 3</u> for details on additional funding).

A.4 Additional or Redirected Funds

Program Administrator ¹¹¹	Amount (2020-2025)	Description			
Central Hudson	\$630,000	Expenditure will be offset by a corresponding underspend of the cumulative authorized budgets for non-LMI Energy Efficiency programs			
Con Edison	\$6,638,909	LMI NE: NY electric funds transferred to gas target achievement due to planned early achievement of electric targets			
National Fuel Gas Distribution Company	\$33,400,244	LIURP funds directed to LMI 1-4 Family Homes, Multifamily, and Customer Awareness, Outreach & Engagement initiatives			
National Grid (KEDLI)	\$2,969,056	Deferral and rate case funding was used to support the KEDLI HEAT program in the 1-4 Family Homes portfolio in 2020 and 2021			
NYSEG	\$296,125	Market-rate NE: NY funds transferred to supplement Customer Awareness, Outreach & Engagement initiatives			
RG&E	\$127,912	Market-rate NENY funds transferred to supplement LMI Customer Awareness, Outreach & Engagement initiatives			

¹¹¹ KEDNY, NMPC, NYSERDA, and Orange & Rockland do not plan to incorporate additional funding or shift funds between electric and gas over the course of the portfolio.

Appendix B: Budgets and Targets by Program Administrator

B.1 Central Hudson

In an effort to maximize participation in AMEEP, Central Hudson is currently planning to exceed the cumulative gas LMI portfolio budget of \$2,124,356 authorized within the 2020 NE: NY Order by \$630,000. Utilizing the flexibility provided within the 2020 NE: NY Order, this additional expenditure will be offset by a corresponding underspend of the cumulative authorized budgets for non-LMI Energy Efficiency programs. Total expenditures across all portfolios are forecasted to come in at the total amount authorized in the 2020 NE: NY Order. Refer to Appendix A in the Statewide LMI Program 2021 Annual Report for additional details regarding Central Hudson's 2021 budgets and targets.

	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services			81,321	80,403	98,686	172,598	433,008
Program Implementation			10,426	10,308	12,652	22,128	55,514
Total Budget			91,747	90,711	111,338	194,726	488,522
Existing Affordable Multifamily							
Buildings							
Incentives & Services			33,144	44,711	56 <i>,</i> 045	74,878	208,778
Program Implementation			9,081	12,250	15,355	20,514	57,200
Total Budget			42,225	56,961	71,400	95,392	265,978
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach							
& Engagement							
Incentives & Services			1,735	1,735	1,735	1,735	6,940
Program Implementation							
Total Budget			1,735	1,735	1,735	1,735	6,940
Portfolio Administration			22,009	16,493	17,335	24,835	80,672
Portfolio EM&V			7,819	8,825	10,812	15,328	42,785
Total Portfolio Budget	-	-	165,535	174,726	212,620	332,017	884,897

Gas Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services			272,862	184,660	215,922	286,278	959,722
Program Implementation			34,983	23,674	27,682	36,702	123,042
Total Budget			307,845	208,335	243,604	322,980	1,082,764
Existing Affordable Multifamily							
Buildings							
Incentives & Services			182,700	260,100	333,450	461,430	1,237,680
Program Implementation			28,420	40,460	51,870	71,778	192,528
Total Budget			211,120	300,560	385,320	533,208	1,430,208
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach							
& Engagement							
Incentives & Services							
Program Implementation							
Total Budget							
Portfolio Administration			44,109	28,523	30,862	37,952	141,446
Portfolio EM&V			21,584	20,884	25,534	32,558	100,561
Total Portfolio Budget	-	-	584,658	558,302	685,320	926,699	2,754,979

Electric Target Distribution (MWh)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes			108	76	93	164	440
Existing Affordable Multifamily			53	71	90	120	334
Buildings							
Affordable New Construction							
Customer Awareness, Outreach			137	273	273	273	957
& Engagement							
Total	-	-	297	420	456	557	1,731

Gas Target Distribution (MMBtu)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes			1,258	1,161	1,357	1,799	5,575
Existing Affordable Multifamily			1,421	2,023	2,594	3 <i>,</i> 589	9,627
Buildings							
Affordable New Construction							
Customer Awareness, Outreach							
& Engagement							
Total	-	-	2,679	3,184	3,951	5,388	15,202

B.2 Con Edison

Con Edison's forecast is based on the goals of meeting or exceeding the targets outlined in the NE: NY order as well as the desire not to turn any qualifying projects away based on the current incentive design. The current design provides a larger incentive for LMI customers, which is necessary for them to be able to participate in the program compared to non-LMI participants. Con Edison projects to overachieve on ordered total savings targets by 12% at the end of the 2020–2025 period. Gas is projected to exceed ordered targets by 15%, and electric is projected to exceed targets by 2%.

The forecast reflects a shifting in the Company's focus from behavioral programs and lighting programs towards more substantial and expensive measures such as improving building envelopes. While the company expects that the unit cost for multifamily will increase over time as it focuses on achieving deep energy retrofit savings, projected unit costs for implementing the LMI portfolio will come in 11% lower than ordered unit costs. Electric unit costs are projected to be 12% lower than ordered unit costs, and gas unit costs are projected to be 8% lower.

Con Edison has seen a particular growth in market demand for multifamily gas program incentives in the 2022 pipeline, as exemplified by the spike in multifamily gas savings in 2022. This spike was caused by lowering non-comprehensive incentives at the beginning of 2022 to accommodate enhanced incentive levels for the new comprehensive offering. The market received notice of the incentive decrease with the launch of AMEEP and was given a two-month transition period, which led to an influx of applications for noncomprehensive gas projects prior to the official incentive change in 2022.

The Company expects that same demand to increase further in 2023 and 2024. To meet this demand, Con Edison plans to pull funds forward from 2025 into earlier years. Additionally, once electric targets have been achieved, Con Edison plans to shift remaining electric funds over to gas to support the overachievement in savings for that commodity. While this will allow the Company to support all the qualifying projects it expects in 2022, 2023, and 2024, there will not be enough funds left in 2025 to meet the expected need, based on the current budget. Therefore, the forecast shows a significant decrease in spending in 2025 as funds run out.

The forecast presented in the Implementation Plan does not include the integration of Clean Heat with AMEEP. With the addition of Clean Heat, it is expected that both savings and spending will increase. This may lead to the need for additional funding in order to meet the projected demand for projects serving LMI customers. The Company will seek to address this issue during the NE: NY Interim

Review, which is scheduled to begin in 2022. During the Interim Review, the Company will seek additional funds to meet the Climate Act goal of providing 35% of program benefits to support disadvantaged communities. Additionally, the forecast presented here is aligned with the directive in the NE: NY Order for 20% of utility incremental funds to be spent on LMI energy efficiency programs.

Electric Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services			202,800	265,200	343,200	468,000	1,279,200
Program Implementation			26,000	34,000	44,000	60,000	164,000
Total Budget			228,800	299,200	387,200	528,000	1,443,200
Existing Affordable Multifamily Buildings							
Incentives & Services	3,187,222	2,278,778	5,281,827	8,440,413	14,154,192	2,537,200	35,879,632
Program Implementation	461,955	538,641	923,969	2,045,099	3,426,048	614,134	8,009,846
Total Budget	3,649,177	2,817,419	6,205,796	10,485,512	17,580,240	3,151,334	43,889,478
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach & Engagement							
Incentives & Services	1,130,560	17,086	714,339	415,241	415,241	108,347	2,800,814
Program Implementation	1,097,967	166,459	459,895	207,043	207,043	54,023	2,192,430
Total Budget	2,228,527	183,545	1,174,235	622,284	622,284	162,369	4,993,244
Portfolio Administration	176,444	546,817	328,000	657,829	744,786	270,794	2,724,670
Portfolio EM&V	318,925	188,872	198,209	540,932	518,119	195,377	1,960,434
Total Portfolio Budget	6,373,073	3,736,654	8,135,040	12,605,757	19,852,629	4,307,874	55,011,026

Gas Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services			682,500	853,125	1,066,406	1,333,008	3,935,039
Program Implementation			87,500	109,375	136,719	170,898	504,492
Total Budget			770,000	962,500	1,203,125	1,503,906	4,439,531
Existing Affordable Multifamily							
Buildings							
Incentives & Services	3,066,284	10,816,538	23,150,393	21,693,566	22,610,684	5,967,725	87,305,190
Program Implementation	865,848	2,808,057	4,587,050	5,338,560	5,643,245	1,510,493	20,753,253
Total Budget	3,932,132	13,624,595	27,737,443	27,032,125	28,253,929	7,478,218	108,058,443
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach &							
Engagement							
Incentives & Services	326,144	9,669	11,025	26,513	26,513	6,918	406,781
Program Implementation	474,685	6,314	21,953	17,339	17,339	4,524	542,155
Total Budget	800,829	15,983	32,979	43,852	43,852	11,442	948,937
Portfolio Administration	86,956	659,442	686,805	713,122	862,574	568,595	3,577,494
Portfolio EM&V	181,514	480,203	1,119,936	1,584,158	1,520,071	759,949	5,645,831
Total Portfolio Budget	5,001,431	14,780,223	30,347,163	30,335,757	31,883,551	10,322,110	122,670,236

Electric Target Distribution (MWh)	l						
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes			268	251	324	442	1,285
Existing Affordable Multifamily	3 <i>,</i> 950	4,047	4,965	6,578	10,880	1,950	32,371
Buildings							
Affordable New Construction							-
Customer Awareness, Outreach	32,816	9,317	10,040	10,040	10,040	2,620	74,871
& Engagement							
Total	36,766	13,36	15,273	16,869	21,244	5,012	108,527

Gas Target Distribution (MMBtu)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes			3,147	5,361	6,701	8,377	23,586
Existing Affordable Multifamily	62,348	202,174	294,786	272,759	273,188	73,123	1,178,378
Buildings							
Affordable New Construction							-
Customer Awareness, Outreach	32 <i>,</i> 948	370	1,210	1,210	1,210	316	37,262
& Engagement							
Total	95,296	202,544	299,143	279,329	281,099	81,815	1,239,226

B.3 KEDLI

The budgets and targets presented here differ from the funding allocated in the 2020 NE: NY Order because additional funding has been added to the portfolio, as approved in KEDLI's Joint Proposal to support the HEAT program. The HEAT program was originally approved and funded through the Company's rate case, but in order to better align with statewide efforts, going forward it will be funded and managed through the Statewide LMI Portfolio.

The forecasted budgets and targets below are based off of the Company's plan to fully spend the allocated budgets to support LMI customers. However, between the programs currently existing in market, planned modifications, and upcoming initiatives, KEDLI is not currently forecasting to reach the ordered target. These forecasts reflect what the Company views as most realistic, and work will continue towards accruing savings to bring the portfolio closer to achieving its goal. Efforts to bring in more savings are described in more detail in the program descriptions within the body of this plan. In summary, KEDLI will expand the KEDLI HEAT program to include moderate-income customers and will work to align offerings with EmPower+, increase marketing and outreach efforts for the multifamily sector to spur more participation in AMEEP, develop and launch community-based initiatives to expand awareness of LMI program offerings, and develop relationships with relevant program administrators such as PSEG LI.

Gas Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	1,152,184	1,044,955	1,850,000	2,390,000	2,755,000	2,940,000	12,132,139
Program Implementation	303,377	325,581	500,000	595,300	677,000	727,000	3,128,258
Total Budget	1,455,561	1,370,536	2,350,000	2,985,300	3,432,000	3,667,000	15,260,397
Existing Affordable Multifamily Buildings							
Incentives & Services			735,000	899,500	1,050,000	1,155,200	3,839,700
Program Implementation			157,500	192,750	225,000	247,543	822,793
Total Budget			892,500	1,092,250	1,275,000	1,402,743	4,662,493
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach & Engagement							
Incentives & Services					237,500	237,500	475,000
Program Implementation			127,850	191,850	251,850	187,850	759,400
Total Budget			127,850	191,850	489,350	425,350	1,234,400
Portfolio Administration	95,377	71,625	271,719	300,749	347,526	336,285	1,423,281
Portfolio EM&V	8,109		106,500	118,550	140,800	147,809	521,768
Total Portfolio Budget	1,559,047	1,442,161	3,748,569	4,688,699	5,684,676	5,979,187	23,102,339

Gas Target Distribution (MMBtu)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	1,555	8,629	9,542	10,050	12,000	14,000	55,776
Existing Affordable Multifamily			10,500	12,850	15,000	16,503	54,853
Buildings							
Affordable New Construction							
Customer Awareness, Outreach					2,240	2,240	4,480
& Engagement							
Total	1,555	8,629	20,042	22,900	29,240	32,743	115,109

B.4 KEDNY

Gas Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services			900,002	798,436	845,033	1,160,954	3,704,425
Program Implementation			84,616	95,539	101,115	138,918	420,188
Total Budget			984,618	893,975	946,148	1,299,872	4,124,613
Existing Affordable Multifamily Buildings							
Incentives & Services			2,198,299	2,679,510	3,278,390	4,287,959	12,444,089
Program Implementation			437,779	608,980	745,089	974,536	2,766,384
Total Budget			2,636,008	3,288,489	4,023,479	5,262,496	15,210,473
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach &							
Engagement							
Incentives & Services			38,420	38,420	38,420	38,420	153,680
Program Implementation			7,738	7,738	7,738	7,738	30,952
Total Budget			46,158	46,158	46,158	46,158	184,632
Portfolio Administration			766,313	909,625	1,058,579	1,379,284	4,113,801
Portfolio EM&V			173,302	157,047	186,260	245,651	762,260
Total Portfolio Budget	-	-	4,606,399	5,295,295	6,260,625	8,233,460	24,395,778

Gas Target Distribution (MMBtu)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes			5,967	7,168	7,586	10,422	31,143
Existing Affordable Multifamily			27,688	35,227	43,101	56,686	162,702
Buildings							
Affordable New Construction							
Customer Awareness, Outreach							
& Engagement							
Total	-	-	33,655	42,395	50,687	67,108	193,845

B.5 National Fuel Gas

Gas Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	4,563,489	3,568,004	4,724,173	4,863,638	4,671,364	4,692,584	27,083,252
Program Implementation		368,180	605,663	623,543	598,893	601,613	2,797,892
Total Budget	4,563,489	3,936,184	5,329,836	5,487,181	5,270,257	5,294,197	29,881,144
Existing Affordable Multifamily							
Buildings							
Incentives & Services			364,001	405,841	502,378	568,953	1,841,173
Program Implementation			90,466	102,163	128,033	146,726	467,388
Total Budget			454,467	508,004	630,411	715,679	2,308,561
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach							
& Engagement							
Incentives & Services	417,200		284,000	300,000	300,000	300,000	1,601,200
Program Implementation							
Total Budget	417,200		284,000	300,000	300,000	300,000	1,601,200
Portfolio Administration	450,000		545,097	561,189	539,004	541,452	2,636,741
Portfolio EM&V			181,699	187,063	179,668	180,484	728,914
Total Portfolio Budget	5,430,689	3,936,184	6,795,099	7,043,437	6,919,339	7,031,812	37,156,560

Gas Target Distribution (MMBtu)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	13,821	15,465	21,781	31,072	29,844	29 <i>,</i> 980	141,963
Existing Affordable Multifamily			4,823	5,102	5,785	6,207	21,917
Buildings							
Affordable New Construction							
Customer Awareness, Outreach							
& Engagement							
Total	13,821	15,465	26,604	36,174	35,629	36,187	163,880

B.6 New York State Energy Research & Development Authority

B.6.1 CEF Budget Expenditures

CEF Budget Distribution (\$0	000)											
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Existing 1-4 Family												
Homes												
Incentives & Services	40,581	59,449	43,049	20,000								163,080
Program Implementation	6,560	7,356	6,921	6,870	4,043	1,050	1,050					33,849
Research and Technology			150	250								400
Studies												
Tools, Training, and		8	350	371	100	100	21					950
Replication												
Business Support			100	250								350
Total Budget	47,141	66,813	50,570	21,741	4,143	1,150	1,071					198,629
Existing Affordable												
Multifamily Buildings												
Incentives & Services	7,011	5,513	17,059	30,531	33,444	39,666	16,512	3,772				153,508
Program Implementation	2,317	2,045	1,893	3,933	5,410	2,640	2,737	776				21,750
Research and Technology				900	900	600	600					3,000
Studies												
Tools, Training, and	44	492	905	1,821	2,456	2,271	2,149					10,137
Replication												
Total Budget	9,372	8,049	19,856	37,184	42,210	45,177	21,998	4,548				188,394
Affordable New												
Construction												
Incentives & Services	1,557	3,002	6,104	11,918	19,512	22,887	22,940	15,948	6,047	2,500		112,412
Program Implementation	362	422	305	230	205	123	50	50	25			1,772
Tools, Training, and	211	389	1,300	1,329	1,350	1,600	1,415	850	500			8,945
Replication												
Total Budget	2,130	3,813	7,709	13,477	21,067	24,609	24,405	16,848	6,572	2,500		123,129
Customer Awareness,												
Outreach & Engagement												
Incentives & Services	97	471	806	1,000	582	582	461					3,999
Program Implementation	14	304	1,565	1,610	1,421	1,206	868					6,988

CEF Budget Distribution (\$0	00)											
Tools, Training, and	25	55	4,266	8,723	8,716	8,716	8,710					39,211
Replication												
Total Budget	137	830	6,637	11,333	10,719	10,504	10,039					50,198
Pilots and												
Demonstrations												
Tools, Training, and			213	639	398	398	398	398				2,444
Replication												
Total Budget			213	639	398	398	398	398				2,444
LMI Solar												
Incentives & Services	1,093	821	1,200	1,200	1,148	1,100	1,100	1,100	1,100	1,100		10,962
Program Implementation	189	74	100	100	100	100	87					750
Total Budget	1,283	895	1,300	1,300	1,248	1,200	1,187	1,100	1,100	1,100		11,713
Electrification												
Incentives & Services		3,043	2,674	5 <i>,</i> 969	4,968	8,000	2,439					27,094
Program Implementation	13	798	260	300	142	200	200					1,904
Tools, Training, and		13	250	250	164	164	162					1,003
Replication												
Total Budget	13	3,845	3,184	6,519	5,274	8,364	2,801					30,000
Healthy Homes VBP												
Incentives & Services		4	116									120
Program Implementation	56	81	81	75	75							368
Research and Technology	865	200	1,952	3,000	3,000	284						9,301
Studies												
Total Budget	921	285	2,150	3,075	3,075	284						9,790
Total Portfolio Budget	60,996	84,530	91,619	101,269	88,133	91,686	61,899	22,893	7,672	3,600	-	614,296

B.6.2 Electric Savings

Electric Savings Distribution (MWh)												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Existing 1-4 Family Homes	3,679	7,031	4,428	1,374								16,512
Existing Affordable Multifamily Buildings	3,532	10,624	9,562	13,768	15,667	30,889	9,295	2,126				95 <i>,</i> 463
Affordable New Construction	297	1,455	3,930	6,645	8,327	11,009	13,918	12,642	4,993	1,929		65,145
Customer Awareness, Outreach &												
Engagement												
Pilots and Demonstrations												
Healthy Homes Pilot			30	135	135							300
Total	7,508	19,110	17,950	21,922	24,129	41,898	23,213	14,768	4,993	1,929	-	177,420

B.6.3 Gas Savings

Gas Savings Distribution	Gas Savings Distribution (MMBtu)													
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total		
Existing 1-4 Family	136,577	210,230	137,146	41,503								525,456		
Homes														
Existing Affordable	30,733	52,440	298,033	694,869	480,962	657,474	422,152	111,760	81,270	81,270	81,270	2,992,233		
Multifamily Buildings														
Affordable New	1,340	12,616	22,080	37,133	46,449	60,214	75,170	67,889	26,642	10,179		359,712		
Construction														
Customer Awareness,														
Outreach &														
Engagement														
Pilots and														
Demonstrations														
Healthy Homes VBP			800	3,700	3,700							8,200		
Total	168,650	275,286	458,059	777,205	531,111	717,688	497,322	179,649	107,912	91,449	81,270	3,885,601		

B.6.4 Other Fuels Saving

Other Fuels Savings Distri	bution (MME	stu)										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Existing 1-4 Family	53,719	73,733	46,826	13,914								188,192
Homes												
Existing Affordable	844	2,503	48,171	172,498	99,923	144,051	85,220	7,622				560,832
Multifamily Buildings												
Affordable New	1,633		1,163	1,955	2,446	3,170	3,956	3,573	1,401	536		19,833
Construction												
Customer Awareness,												
Outreach &												
Engagement												
Pilots and												
Demonstrations												
Healthy Homes VBP			200	800	800							1,800
Total	56,196	76,236	96,360	189,167	103,169	147,221	89,176	11,195	1,401	536	-	770,657

B.6.5 Indirect Electric Savings

Indirect Electric Savings (ndirect Electric Savings (MWh)													
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total		
Existing Affordable Multifamily Buildings			1,857	6,184	8,040	11,698	24,102	29,941	38,410	50,996	63,652	234,880		
Affordable New Construction	6,974	2,594	2,659	2,659	2,659	2,659	2,659	2,659	2,659	2,659	2,659	33,499		
Healthy Homes VBP	192						4,858				50,950	56,000		
Total	7,166	2,594	4,516	8,843	10,699	14,357	31,619	32,600	41,069	53,655	117,261	324,379		

B.6.6 Indirect Gas Savings

Indirect Gas Savings (MMB	ndirect Gas Savings (MMBtu)													
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total		
Existing Affordable			77,307	240,157	317,464	402,755	574,571	607,613	678,373	848,698	1,011,661	4,758,599		
Multifamily Buildings														
Affordable New	48,209	14,392	14,688	14,688	14,688	14,688	14,688	14,688	14,688	14,688	14,688	194,793		
Construction														
Healthy Homes VBP	5,120						129,280				1,361,600	1,496,000		
Total	53,329	14,392	91,995	254,845	332,152	417,443	718,539	622,301	693,061	863,386	2,387,949	6,449,392		

B.6.7 Indirect Other Fuels Savings

Indirect Other Fuels Savings (MMBtu)													
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total	
Existing Affordable Multifamily Buildings			19,327	73,410	92,737	114,466	155,813	164,074	181,764	224,345	265,907	1,291,843	
Affordable New Construction	2,537	758	774	774	774	774	774	774	774	774	774	10,261	
Healthy Homes VBP	1,280						32,320				340,400	374,000	
Total	3,817	758	20,101	74,184	93,511	115,240	188,907	164,848	182,538	225,119	607,081	1,676,104	

B.6.8 Direct CO2 Emission Reduction

CO2e Emission Reduction	CO2e Emission Reduction (metric tons) Annual (Direct Only)														
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total			
Existing 1-4 Family	11,152	17,491	12,894	3,972								45,509			
Homes															
Existing Affordable	3,345	7,433	24,960	59,342	42,394	63,362	34,757	7,691	4,320	4,320	4,320	256,244			
Multifamily Buildings															
Affordable New	321	1,398	3,245	5,474	6,855	8,994	11,315	10,255	4,040	1,554		53,451			
Construction															
Healthy Homes VBP			76	336	336							748			
Total	14,818	26,322	41,175	69,124	49,585	72,356	46,072	17,946	8,360	5,874	4,320	355,952			

CO2e Emission Reducti	CO2e Emission Reduction (metric tons) Lifetime (Direct Only)													
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total		
Existing 1-4 Family Homes	263,174	407,369	302,730	92,948								1,066,221		
Existing Affordable Multifamily Buildings	46,995	103,051	365,993	845,252	637,973	952,260	524,252	132,211	64,806	64,806	64,806	3,802,405		
Affordable New Construction	8,014	34,961	81,116	136,861	171,384	224,852	282,882	256,384	101,010	38,861		1,336,325		
Healthy Homes VBP		3	1,420	6,319	6,319							14,061		
Total	318,183	545,384	751,259	1,081,380	815,676	1,177,112	807,134	388,595	165,816	103,667	64,806	6,219,012		

B.6.9 Indirect CO2 Emission Reduction

CO2e Emission Reduction	CO2e Emission Reduction (metric tons) Annual												
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total	
Existing Affordable			6,777	22,463	29,240	37,558	56,616	62,037	71,628	90,809	109,542	486,670	
Multifamily Buildings													
Affordable New	6,239	2,131	2,181	2,181	2,181	2,181	2,181	2,181	2,181	2,181	2,181	27,999	
Construction													
Healthy Homes VBP	463						12,210				128,490	141,163	
Total	6,702	2,131	8,958	24,644	31,421	39,739	71,007	64,218	73 <i>,</i> 809	92,990	240,213	655,832	

CO2e Emission Reductio	CO2e Emission Reduction (metric tons) Lifetime											
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Existing Affordable Multifamily Buildings			101,651	272,070	373,721	515,821	862,264	1,004,565	1,230,253	1,620,650	1,999,792	7,980,787
Affordable New Construction	155,987	53,277	54,519	54,519	54,519	54,519	54,519	54,519	54,519	54,519	54,519	699,935
Healthy Homes VBP	8,680						229,616				2,416,846	2,655,142
Total	164,667	53,277	156,170	326,589	428,240	570,340	1,146,399	1,059,084	1,284,772	1,675,169	4,471,157	11,335,864

B.7 New York State Electric & Gas (NYSEG)

The below budgets and targets represent a 60%/40% split between residential (EmPower NY) and multifamily ordered spend per the January 2020 Order. Within the Customer Awareness, Outreach and Engagement section, there is collective funding for planned LMI programs and activities that will utilize non-LMI funding to support LMI goals. Historically, LMI programs are more expensive to run. NYSEG continues to look for additional cost-effective programs and activities to support LMI customers and offset that higher cost for the Portfolio.

Electric Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	382,682	368,025	414,861	679,789	984,298	1,350,655	4,180,310
Program Implementation	53,698	38,558	53,187	87,152	126,192	173,161	531,948
Total Budget	436,380	406,583	468,048	766,941	1,110,490	1,523,816	4,712,258
Existing Affordable Multifamily							
Buildings							
Incentives & Services	405,309	21,708	327,026	560,243	811,048	1,113,442	3,238,776
Program Implementation	38,171	39,083	16,795	12,741	12,741	12,741	132,272
Total Budget	443,480	60,791	343,821	572,984	823,789	1,126,183	3,371,048
Affordable New Construction							
Incentives & Services				36,590	36,590	36,590	109,770
Program Implementation				285,403	285,403	285,403	856,209
Total Budget				321,993	321,993	321,993	965,979
Customer Awareness, Outreach &							
Engagement							
Incentives & Services			105,466	85,000	20,000	20,000	230,466
Program Implementation			32,659	33,000			65,659
Total Budget			138,125	118,000	20,000	20,000	296,125
Portfolio Administration		27,539	61,693	125,902	158,485	198,687	572,306
Portfolio EM&V			35,227	54,844	74,313	97,755	262,139
Total Portfolio Budget	879,860	494,913	1,046,914	1,960,664	2,509,070	3,288,434	10,179,855

Gas Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	46,651	637,378	982,387	1,601,288	2,309,155	3,161,835	8,738,694
Program Implementation	2,444	60,186	125,947	205,293	296,045	405,363	1,095,278
Total Budget	49,095	697,594	1,108,334	1,806,581	2,605,200	3,567,198	9,833,972
Existing Affordable Multifamily							
Buildings							
Incentives & Services	25,506	3,875	763,535	1,307,180	1,892,394	2,597,978	6,590,468
Program Implementation	3,211	50,227	39,257	29,782	29,782	29,782	182,041
Total Budget	28,717	54,102	802,792	1,336,962	1,922,176	2,627,760	6,772,509
Affordable New Construction							
Incentives & Services				24,015	24,015	24,015	72,045
Program Implementation				187,313	187,313	187,313	561,939
Total Budget				211,328	211,328	211,328	633,984
Customer Awareness, Outreach &							
Engagement							
Incentives & Services							
Program Implementation							
Total Budget							
Portfolio Administration		33,776	127,176	220,911	300,035	396,351	1,078,249
Portfolio EM&V			83,712	110,141	155,466	210,083	559,402
Total Portfolio Budget	77,812	785,442	2,122,014	3,685,923	5,194,205	7,012,720	18,878,116

Electric Target Distribution (MWh)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	359	249	367	596	857	1,171	3,599
Existing Affordable Multifamily	882	48	631	1,041	1,718	3,006	7,325
Buildings							
Affordable New Construction				180	145	164	489
Customer Awareness, Outreach			2,572	2,400	400	400	5,772
& Engagement							
Total	1,241	296	3,570	4,217	3,120	4,741	17,185

Gas Target Distribution (MMBtu)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	95	2,505	4,716	7,657	11,009	15,050	41,032
Existing Affordable Multifamily	638	31	3,500	5,775	9,529	16,675	36,149
Buildings							
Affordable New Construction				662	529	587	1,778
Customer Awareness, Outreach							
& Engagement							
Total	733	2,537	8,216	14,094	21,067	32,312	78,960

B.8 NMPC

Electric Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services			463,935	541,376	761,516	1,025,632	2,792,459
Program Implementation			59,277	77,119	108,478	146,102	390,976
Total Budget			523,213	618,495	869,994	1,171,734	3,183,435
Existing Affordable Multifamily Buildings							
Incentives & Services			350,375	562,268	754,424	1,081,906	2,748,972
Program Implementation			79,631	127,788	171,460	245,888	624,766
Total Budget			430,005	690,056	925,883	1,327,794	3,373,739
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach &							
Engagement							
Incentives & Services			398,248	168,970	56,323		623,541
Program Implementation			1,800	1,800	1,800	1,800	7,200
Total Budget			400,048	170,770	58,123	1,800	630,741
Portfolio Administration			247,746	291,981	388,014	520,020	1,447,761
Portfolio EM&V			33,861	60,173	77,364	93,008	264,405
Total Portfolio Budget	-	-	1,634,872	1,831,475	2,319,377	3,114,356	8,900,080

Gas Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services			1,001,801	1,122,854	1,579,440	2,127,237	5,831,332
Program Implementation			94,186	134,359	188,993	254,541	672,079
Total Budget			1,095,987	1,257,213	1,768,433	2,381,778	6,503,411
Existing Affordable Multifamily							
Buildings							
Incentives & Services			1,135,220	1,688,132	2,170,589	2,975,560	7,969,500
Program Implementation			258,004	383,666	493,316	676,264	1,811,250
Total Budget			1,393,224	2,071,798	2,663,904	3,651,823	9,780,749
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach &							
Engagement							
Incentives & Services			38,803	38,803	38,803	38,803	155,210
Program Implementation			7,317	7,317	7,317	7,317	29,269
Total Budget			46,120	46,120	46,120	46,120	184,479
Portfolio Administration			590,795	749,845	978,829	1,311,352	3,630,820
Portfolio EM&V			146,928	125,860	167,302	227,302	667,391
Total Portfolio Budget	-	-	3,273,054	4,250,835	5,624,587	7,618,375	20,766,851

Electric Target Distribution (MWh)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes			623	512	720	969	2,824
Existing Affordable Multifamily			508	815	1,093	1,571	3 <i>,</i> 987
Buildings							
Affordable New Construction							
Customer Awareness, Outreach			4,653	1,606	325		6,584
& Engagement							
Total	-	-	5,784	2,933	2,138	2,540	13,395

Gas Target Distribution (MMBtu)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes			4,658	7,056	9,925	13,368	35,007
Existing Affordable Multifamily			16,340	25,026	32,178	44,116	117,660
Buildings							
Affordable New Construction							
Customer Awareness, Outreach							
& Engagement							
Total	-	-	20,998	32,082	42,103	57,484	152,667

B.9 Orange & Rockland

Forecasted budgets and targets for O&R are directed towards the goal of fully investing the allocated budgets to support LMI customers. The Company expects the majority of LMI participation to be in the 1-4 Family Homes sector, so therefore 70% of the electric budget and 80% of the gas budget have been allocated towards the EmPower NY program. As the Company expands its Customer Awareness, Outreach and Engagement initiatives to increase awareness of LMI offerings, it will also engage and guide LMI customers to make energy-wise decisions for their homes.

Electric Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services			397,800	429,000	459,000		1,255,800
Program Implementation			112,200	121,000	121,000		354,200
Total Budget			510,000	550,000	550,000		1,610,000
Existing Affordable Multifamily Buildings							
Incentives & Services			19,782	23,420	27,962	30,658	101,822
Program Implementation			4,946	5 <i>,</i> 855	6,990	7,664	25,455
Total Budget			24,728	29,275	34,952	38,322	127,277
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach &							
Engagement							
Incentives & Services			112,147	53 <i>,</i> 357	53,357	53,357	272,218
Program Implementation			46,725	10,850	10,850	10,850	79,275
Total Budget			158,872	64,207	64,207	64,207	351,493
Portfolio Administration			42,600	43,400	43,200	42,792	171,992
Portfolio EM&V			14,400	15,600	15,300	15,597	60,897
Total Portfolio Budget	-	-	750,600	702,482	707,659	160,918	2,321,659

Gas Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services			1,070,160	1,014,000	156,000		2,240,160
Program Implementation			301,840	286,000	44,000		631,840
Total Budget			1,372,000	1,300,000	200,000		2,872,000
Existing Affordable Multifamily Buildings							
Incentives & Services			34,167	46,791	61,380	74,932	217,270
Program Implementation			8,542	11,698	15,345	18,733	54,318
Total Budget			42,709	58,488	76,725	93,665	271,588
Affordable New Construction							
Incentives & Services							
Program Implementation							
Total Budget							
Customer Awareness, Outreach &							
Engagement							
Incentives & Services			39,956	42,387	42,387	42,387	167,116
Program Implementation			15,500	4,650	4,650	4,650	29,450
Total Budget			55,456	47,037	47,037	47,037	196,566
Portfolio Administration			65,000	67,000	65,300	65,424	262,724
Portfolio EM&V			28,500	27,000	26,700	26,625	108,825
Total Portfolio Budget	-	-	1,563,664	1,499,525	415,762	232,751	3,711,702

Electric Target Distribution (MWh)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes			525	412	412		1,349
Existing Affordable Multifamily			40	47	58	63	207
Buildings							
Affordable New Construction							
Customer Awareness, Outreach			1,814	281	281	281	2,657
& Engagement							
Total			2,379	740	750	344	4,213

Gas Target Distribution (MMBtu)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes			4,934	6,478	997		12,409
Existing Affordable Multifamily			382	499	609	694	2,184
Buildings							
Affordable New Construction							
Customer Awareness, Outreach			3,644	4,527	4,527	4,527	17,226
& Engagement							
Total			8,960	11,505	6,133	5,221	31,819

B.10 Rochester Gas & Electric (RG&E)

The below budgets and targets represent a 60%/40% split between residential (EmPower NY) and multifamily ordered spend per the January 2020 Order. Within the Customer Awareness, Outreach and Engagement section, there is collective funding for planned LMI programs and activities that will utilize non-LMI funding to support LMI goals. Historically, LMI programs are more expensive to run. RG&E continues to look for additional cost-effective programs and activities to support LMI customers and offset that higher cost for the Portfolio.

Electric Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	199,277	227,407	225,674	335,778	472,919	616,508	2,077,563
Program Implementation	28,829	25,639	28,933	43,048	60,631	79,040	266,120
Total Budget	228,106	253,046	254,607	378,826	533,550	695,548	2,343,683
Existing Affordable Multifamily Buildings							
Incentives & Services	256,456	73,013	180,949	279,163	391,485	509,413	1,690,479
Program Implementation	19,220	38,041	9,293	7,050	7,050	7,050	87,704
Total Budget	275,676	111,054	190,242	286,213	398,535	516,463	1,778,183
Affordable New Construction							
Incentives & Services				25,893	25,893	25,893	77,679
Program Implementation				201,962	201,962	201,962	605,886
Total Budget				227,855	227,855	227,855	683,565
Customer Awareness, Outreach &							
Engagement							
Incentives & Services			40,500	45,000			85,500
Program Implementation			20,412	22,000			42,412
Total Budget			60,912	67,000			127,912
Portfolio Administration		17,678	37,559	74,158	87,855	102,698	319,948
Portfolio EM&V			19,346	29,534	38,282	47,453	134,615
Total Portfolio Budget	503,782	381,778	562,666	1,063,586	1,286,077	1,590,017	5,387,906

Gas Budget Distribution (\$)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes							
Incentives & Services	19,183	370,104	538,554	796,078	1,113,862	1,447,108	4,284,889
Program Implementation	1,879	36,416	69,045	102,061	142,803	185,527	537,731
Total Budget	21,062	406,520	607,599	898,139	1,256,665	1,632,635	4,822,620
Existing Affordable Multifamily							
Buildings							
Incentives & Services	29,846	57,516	421,095	651,402	913,487	1,188,833	3,262,179
Program Implementation	1,253	41,789	21,654	16,427	16,427	16,247	113,797
Total Budget	31,099	99,305	442,749	667,829	929,914	1,205,080	3,375,976
Affordable New Construction							
Incentives & Services				13,294	13,294	13,294	39,882
Program Implementation				103,692	103,692	103,692	311,076
Total Budget				116,986	116,986	116,986	350,958
Customer Awareness, Outreach &							
Engagement							
Incentives & Services							
Program Implementation							
Total Budget							
Portfolio Administration		19,289	73,661	115,930	150,470	187,197	546,547
Portfolio EM&V			46,115	55,260	75,589	96,916	273,880
Total Portfolio Budget	52,161	525,114	1,170,124	1,854,144	2,529,624	3,238,814	9,369,981

Electric Target Distribution (MWh)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	262	267	202	298	414	537	1,980
Existing Affordable Multifamily	566	51	348	575	949	1,661	4,150
Buildings							
Affordable New Construction				128	102	116	346
Customer Awareness, Outreach			1,134	1,200			2,334
& Engagement							
Total	828	317	1,684	2,201	1,465	2,314	8,810

Gas Target Distribution (MMBtu)							
	2020	2021	2022	2023	2024	2025	Total
Existing 1-4 Family Homes	130	1,500	2,600	6,692	9,319	12,076	32,317
Existing Affordable Multifamily	639		1,930	3,184	5,254	9,195	20,203
Buildings							
Affordable New Construction				366	293	325	984
Customer Awareness, Outreach							
& Engagement							
Total	770	1,500	4,530	10,242	14,866	21,596	53,504

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)	53,895	73,884	66,573	46,244	24,631	24,933	1,071	260,677
Additional Utility								
Funding ¹¹² (\$000)								30,553
MWh Annual	4,300	7,546	6,521	3,518	2,820	3,283		27,989
MWh Lifetime	65 <i>,</i> 580	113,939	99,242	54,786	45,154	53,248		431,949
MMBtu Annual	205,898	312,062	242,576	138,112	88,738	105,072		1,092,456
MMBtu Lifetime	5,108,143	7,695,805	5,852,566	3,157,367	1,862,532	2,184,491		25,860,904
CO2e Emission								
Reduction (metric tons)								
Annual	12,292	19,243	17,057	9,441	6,128	7,228		71,389
CO2e Emission								
Reduction (metric tons)								
Lifetime	287,021	443,331	385,776	204,245	121,606	142,770		1,584,749
Participant Bill Savings								
Annual (\$000)	1,396	2,217	1,788	1,064	713	852		8,031
Participant Bill Savings								
Lifetime (\$000)	34,625	56,460	42,844	24,199	14,978	17,762		188,868
Participants	15,029	17,077	18,064	17,260	16,202	16,981		100,612
Leveraged Funds (\$000)	14,092	29,546	12,375	3,167	533	522		60,234

¹¹² Additional Utility Funding in Appendix C tables contributed by KEDLI and LIURP from rate case allocated funds, and by Central Hudson and NYSEG/RG&E from market rate program funds.

C.2 Existing Affordable Multifamily Building	C.2 Existing	Affordable	Multifamily	/ Buildings
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Metric	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Total Budget Spend												
(\$000)	17,732	24,817	61,706	85,662	102,206	74,403	21,998	4,548				391,592
Additional Utility												
Funding (\$000)												1,479
Direct MWh Annual	8,930	14,769	16,106	22,896	30,454	39,260	9,295	2,126				143,838
Direct MWh Lifetime	104,789	196,031	206,667	296,124	379 <i>,</i> 058	559 <i>,</i> 928	139,425	31,890				1,913,912
Indirect MWh Annual			1,857	6,184	8,040	11,698	24,102	29,941	38,410	50,996	63,652	234,880
Indirect MWh Lifetime			27,855	92,760	120,600	175,470	361,530	449,115	576,150	764,940	954,780	3,523,200
Direct MMBtu Annual	95,203	257,148	707,574	1,229,812	968,124	1,028,313	507,372	119,382	81,270	81,270	81,270	5,156,739
Direct MMBtu Lifetime	1,313,207	3,478,131	10,126,840	18,025,536	14,125,938	15,447,657	7,610,580	1,790,730	1,219,050	1,219,050	1,219,050	75,575,768
Indirect MMBtu Annual			96,634	313,567	410,201	517,221	730,384	771,687	860,137	1,073,043	1,277,568	6,050,442
Indirect MMBtu												
Lifetime			1,449,510	4,703,505	6,153,015	7,758,315	10,955,760	11,575,305	12,902,055	16,095,645	19,163,520	90,756,630
Direct CO2e Emission												
Reduction (metric tons)												
Annual	9,428	20,256	46,576	81,847	68,668	77,261	34,757	7,691	4,320	4,320	4,320	359,445
Direct CO2e Emission												
Reduction (metric tons)												
Lifetime	117,547	262,487	645,844	1,135,134	970,075	1,144,659	524,252	132,211	64,806	64,806	64,806	5,126,628
Indirect CO2e Emission												
Reduction (metric tons)												
Annual			6,777	22,463	29,240	37,558	56,616	62,037	71,628	90,809	109,542	486,670
Indirect CO2e Emission												
Reduction (metric tons)												
Lifetime			101,651	272,070	373,721	515,821	862,264	1,004,565	1,230,253	1,620,650	1,999,792	7,980,787
Participant Bill Savings												
Annual (\$000)	713	2,023	6,636	9,922	8,300	7,699	3 <i>,</i> 585	949	690	690	690	41,898
Participant Bill Savings												
Lifetime (\$000)	9,698	27,091	93,422	143,363	119,214	115,012	53,782	14,238	10,352	10,352	10,352	606,875
Participants	4,811	9,867	114,756	129,216	146,777	77,652	14,273	809				498,161
Leveraged Funds (\$000)	18,414	33,690	115,409	133,273	149,240	187,161	104,408	163,940	83,000	83,000	86,000	1,157,534

C.3 Affordable	New	Constru	uction
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Metric	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Total Budget Spend												
(\$000)	2,130	3,813	7,709	14,355	21,945	25,488	24,405	16,848	6,572	2,500		125,763
Direct MWh Annual	297	1,455	3,930	6,953	8,574	11,289	13,918	12,642	4,993	1,929		65 <i>,</i> 980
Direct MWh Lifetime	7,425	36,375	98,250	173,825	214,350	282,225	347,950	316,050	124,825	48,225		1,649,500
Indirect MWh Annual	6,974	2,594	2,659	2,659	2,659	2,659	2,659	2,659	2,659	2,659	2,659	33,499
Indirect MWh Lifetime	174,350	64,850	66,475	66,475	66,475	66,475	66,475	66,475	66,475	66,475	66 <i>,</i> 475	837,475
Direct MMBtu Annual	2,973	12,616	23,243	40,116	49,717	64,296	79,126	71,462	28,043	10,715		382,307
Direct MMBtu Lifetime	74,325	315,400	581,075	1,002,900	1,242,925	1,607,400	1,978,150	1,786,550	701,075	267,875		9,557,675
Indirect MMBtu Annual	50,746	15,150	15,462	15,462	15,462	15,462	15,462	15,462	15,462	15,462	15,462	205,054
Indirect MMBtu												
Lifetime	1,268,650	378,750	386,550	386,550	386,550	386,550	386,550	386,550	386,550	386,550	386,550	5,126,350
Direct CO2e Emission												
Reduction (metric												
tons) Annual	321	1,398	3,245	5,683	7,022	9,183	11,315	10,255	4,040	1,554		54,016
Direct CO2e Emission												
Reduction (metric												
tons) Lifetime	8,014	34,961	81,116	142,080	175,566	229,566	282,882	256,384	101,010	38,861		1,350,440
Indirect CO2e Emission												
Reduction (metric												
tons) Annual	6,239	2,131	2,181	2,181	2,181	2,181	2,181	2,181	2,181	2,181	2,181	27,999
Indirect CO2e Emission												
Reduction Lifetime	155,987	53,277	54,519	54,519	54,519	54,519	54,519	54,519	54,519	54,519	54,519	699 <i>,</i> 935
Participant Bill Savings												
Annual (\$000)	7	70	188	322	400	518	639	577	227	87		3 <i>,</i> 035
Participant Bill Savings												
Lifetime (\$000)	186	1,746	4,693	8,056	10,004	12,945	15,979	14,432	5,664	2,164		75,869
Participants	294	1,183	1,965	3,228	4,007	4,974	5,983	5,264	1,995	714		29,607
Leveraged Funds												
(\$000)	1,048	4,234	9,825	15,616	19,154	22,890	23,999	15,277	2,837			114,880

Metric	2020	2021	2022	2023	2024	2025	2026	Total
Total Budget Spend								
(\$000)	3,583	1,029	9,163	13,052	12,458	11,630	10,039	58,930
Additional Utility Funding								
(\$000)								2,025
MWh Annual	32,816	9,317	20,349	15,800	11,319	3,574		93,174
MWh Lifetime	282,215	80,123	240,979	172,746	105,531	36,843		918,436
MMBtu Annual	32,948	370	4,854	5,737	7,977	7,083		58,968
MMBtu Lifetime	329,475	3,701	48,539	57,368	59,608	50,669		549,360
CO2e Emission Reduction								
(metric tons) Annual	18,170	4,681	10,439	8,210	6,087	2,165		49,751
CO2e Emission Reduction								
(metric tons) Lifetime	158,711	40,283	123,146	89,477	55,967	21,126		488,710
Participant Bill Savings								
Annual (\$000)	349	6	57	65	90	75		642
Participant Bill Savings								
Lifetime (\$000)	3,480	55	572	651	669	526		5,954
Participants	501,556	66,681	245,241	147,442	86,288	22,077		1,069,285
Leveraged Funds (\$000)								-

C.4 Customer Awareness, Outreach, and Engagement

C.5 Pilots and Demonstrations

Metric	2020	2021	2022	2023	2024	2025	2026	2027	Total
Total Budget Spend (\$000)			213	639	398	398	398	398	2,444
MWh Annual									-
MWh Lifetime									-
MMBtu Annual									-
MMBtu Lifetime									-
CO2e Emission Reduction									
(metric tons) Annual									-
CO2e Emission Reduction									
(metric tons) Lifetime									-
Participant Bill Savings									
Annual (\$000)									-
Participant Bill Savings									
Lifetime (\$000)									-
Participants									-
Leveraged Funds (\$000)									-

C. 6 NYS Healthy Homes VBP Pilot

Metric	2020	2021	2022	2023	2024	2025	2026	2030	Total
Total Budget Spend (\$000)	921	285	2,150	3,075	3,075	284			9,790
MWh Annual			30	135	135				300
MWh Lifetime			420	1,890	1,890				4,200
Indirect MWh Annual	192						4,858	50,950	56,000
Indirect MWh Lifetime	2,688						68,012	713,300	784,000
MMBtu Annual			1,000	4,500	4,500				10,000
MMBtu Lifetime			20,000	90,000	90,000				200,000
Indirect MMBtu Annual	6,400						161,600	1,702,000	1,870,000
Indirect MMBtu Lifetime	128,000						3,232,000	34,040,000	37,400,000
Direct CO2e Emission Reduction									
(metric tons) Annual			76	336	336				748
Direct CO2e Emission Reduction									
(metric tons) Lifetime		3	1,420	6,319	6,319				14,061
Indirect CO2e Emission Reduction									
(metric tons) Annual	463						12,210	128,490	141,163
Indirect CO2e Emission Reduction									
(metric tons) Lifetime	8,680						229,616	2,416,846	2,655,142
Participant Bill Savings Annual (\$000)			9	42	42				94
Participant Bill Savings Lifetime									
(\$000)			189	849	849				1,887
Participants			50	225	225				500
Leveraged Funds (\$000)									-

C.7 Beneficial Electrification¹¹³

Metric	2020	2021	2022	2023	2024	2025	2026	Total
Total Budget Spend (\$000)	13	3,845	3,184	6,519	5,274	8,364	2,801	30,000
MWh Annual								-
MWh Lifetime								-
MMBtu Annual								-
MMBtu Lifetime								-
CO2e Emission Reduction (metric tons) Annual								-
CO2e Emission Reduction (metric tons) Lifetime								-
Participant Bill Savings Annual (\$000)								-
Participant Bill Savings Lifetime (\$000)								-
Participants								-
Leveraged Funds (\$000)								-

¹¹³ 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 future filing of the Implementation Plan.

C.8 LMI Solar¹¹⁴

Metric	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Total Budget Spend												
(\$000)	1,283	895	1,300	1,300	1,248	1,200	1,187	1,100	1,100	1,100		11,713
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												-

¹¹⁴ 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 Statewide LMI Portfolio Implementation Plan. Metrics for LMI Solar are included and reported through NY-Sun.

Appendix D: Statewide LMI Portfolio Performance Metrics Tracking Mechanisms

The below table indicates how the Performance Metrics in <u>Section 2.5</u> will be assessed.

Performance Metrics Tracking Mechanism	Relevant Performance Metrics
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 (<i>e.g.</i>, Customer Hub, Utility or NYSERDA outreach materials, contractors, etc.) Participation satisfaction rating
Analyze administrative costs through Statewide 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 Statewide 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
Benefits	Deferred capacity costs (generation, transmission, and distribution)
	Reduced CO ₂ emissions

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
2022	\$1,100,170	\$801,487	1.37	\$563,799	\$709,516	0.79
2023	\$1,306,671	\$821,157	1.59	\$678,392	\$758,044	0.89
2024	\$1,586,361	\$1,115,729	1.42	\$825,812	\$901,454	0.92
2025	\$2,271,100	\$1,744,310	1.30	\$1,186,417	\$1,275,993	0.93

E.2 Con Edison

		SCT		UCT			
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio	
2022	\$51,080,543	\$51,133,391	1.00	\$25,724,450	\$33,765,575	0.76	
2023	\$53,268,295	\$63,748,630	0.84	\$27,293,375	\$42,927,176	0.64	
2024	\$62,389,118	\$76,246,720	0.82	\$32,981,194	\$51,718,109	0.64	
2025	\$18,585,128	\$20,456,887	0.91	\$9,716,518	\$14,606,893	0.67	

E.3 National Grid (KEDLI)

		SCT		UCT			
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio	
2022	\$2,967,462	\$3,671,284	0.81	\$1,413,084	\$3.461,042	0.41	
2023	\$3,457,351	\$4,510,816	0.77	\$1,654,740	\$4,258,399	0.39	
2024	\$4,259,962	\$5,353,215	0.80	\$2,030,332	\$5,081,170	0.40	
2025	\$5,219,937	\$6,061,711	0.86	\$2,516,949	\$5,683,069	0.44	

E.4 National Grid (KEDNY)

		SCT		UCT			
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio	
2022	\$5,190,045	\$4,609,228	1.13	\$2,461,883	\$4,074,140	0.60	
2023	\$7,154,423	\$5,949,257	1.20	\$3,419,462	\$5,245,694	0.65	
2024	\$8,738,207	\$7,075,575	1.23	\$4,206,620	\$6,209,344	0.68	
2025	\$11,741,031	\$9,495,279	1.24	\$5,695,205	\$8,320,164	0.68	

E.5 National Fuel Gas

		SCT		UCT			
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio	
2022	\$13,786,505	\$13,264,762	1.04	\$7,170,221	\$12,813,246	0.56	
2023	\$8,777,934	\$8,919,949	0.98	\$4,515,327	\$8,388,351	0.54	
2024	\$8,853,170	\$8,875,968	1.00	\$4,574,321	\$8,235,878	0.56	
2025	\$9,053,885	\$9,016,712	1.00	\$4,700,476	\$8,326,578	0.56	

		SCT			UCT	
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio
2022	\$123,062,056	\$171,892,755	0.72	\$66,513,484	\$85,127,359	0.78
2023	\$202,073,274	\$158,557,184	1.27	\$113,991,098	\$73,594,632	1.55
2024	\$223,283,211	\$159,971,111	1.40	\$127,722,744	\$68,918,472	1.85
2025	\$303,399,470	\$214,246,523	1.42	\$174,550,033	\$72,816,016	2.40
2026	\$155,304,952	\$137,101,783	1.13	\$89,752,333	\$48,146,083	1.86
2027	\$45,406,627	\$98,047,352	0.46	\$25,954,905	\$17,777,508	1.46
2028	\$13,661,876	\$9,450,895	1.45	\$7,927,563	\$6,613,693	1.20
2029	\$4,930,952	\$2,515,370	1.96	\$2,882,858	\$2,515,370	1.15

E.6 New York State Energy Research & Development Authority

E.7 New York State Electric & Gas (NYSEG)

	SCT		UCT			
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio
2022	\$2,929,427	\$3,790,650	0.77	\$1,147,129	\$3,624,001	0.32
2023	\$5,346,983	\$6,852,238	0.78	\$2,164,809	\$6,329,408	0.34
2024	\$7,759,571	\$10,989,299	0.71	\$3,214,530	\$10,002,023	0.32
2025	\$11,565,913	\$16,290,098	0.71	\$4,935,957	\$14,604,530	0.34

E.8 National Grid (NMPC)

	SCT		UCT			
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio
2022	\$9,350,025	\$4,747,160	1.97	\$4,092,232	\$4,507,331	0.91
2023	\$9,684,813	\$6,698, 929	1.45	\$4,546,634	\$6,309,273	0.72
2024	\$11,312,959	\$8,581,369	1.32	\$5,459,277	\$8,099,339	0.67
2025	\$16,620,138	\$11,917,709	1.39	\$8,273,160	\$11,181,779	0.74

E.9 Orange & Rockland

		SCT		UCT		
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio
2022	\$4,073,400	\$2,280,267	1.79	\$1,652,659	\$2,222,822	0.74
2023	\$2,423,222	\$2,155,234	1.12	\$1,092,525	\$2,072,147	0.53
2024	\$2,773,362	\$2,474,243	1.12	\$1,265,312	\$2,369,635	0.53
2025	\$2,967,579	\$2,616,112	1.13	\$1,367,891	\$2,493,688	0.55

E.10 Rochester Gas & Electric (RG&E)

	SCT		UCT			
	Benefits	Costs	Benefit Cost Ratio	Benefits	Costs	Benefit Cost Ratio
2022	\$1,490,165	\$2,088,591	0.71	\$572,344	\$1,991,277	0.29
2023	\$2,402,498	\$3,307,788	0.73	\$948,567	\$3,084,559	0.31
2024	\$3,657,119	\$4,979,804	0.73	\$1,469,738	\$4,622,560	0.32
2025	\$5,564,652	\$7,470,173	0.74	\$2,269,141	\$6,837,399	0.33

Appendix F: Implementation Milestones

This Appendix provides additional detail regarding the milestones provided in the 2020 Plan and this Plan. The tables below have two milestone columns to indicate whether a milestone is from the 2020 Plan or is new in this Plan. The third column provides the Status as of the filing of this Plan. Additional information on the progress of meeting milestones to date is provided in Annual Reports. For example, the 2021 Annual Report provides additional detail on progress made in 2021 towards the milestones from 2020 and 2021 as laid out in the 2020 Implementation Plan.¹¹⁵ Any milestone with the status "Delayed" or "No Longer Applicable" has its status explained in more detail below its respective milestone table.

Year	Milestone from 2020	Milestone Added or	Status
	Implementation Plan	Updated in Current	
		Implementation Plan	
2020	Redesign of current set of		Complete
	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		Complete
	to inform redesign of		
	programs		
	• Test a model geographic-		Complete
	based eligibility and		
	determine how it can be		
	applied to programs going		
	forward		
2021	Launch of redesigned		Delayed
	programs (milestone		
	moved from 2021 to 2023)		
	Ongoing stakeholder		In Progress
	engagement and		U
	coordination with other		
	programs (<i>e.g.</i> , HEAP and		
	WAP)		

1-4 Family Homes

¹¹⁵ NE: NY Proceeding, 2021 Annual Report.

2022	 Calibration of programs, where necessary, to improve impact and reach underserved or otherwise disadvantaged communities 		No Longer Applicable
	 Ongoing stakeholder engagement and coordination with other programs (<i>e.g.</i>, HEAP and WAP) 	 Improve coordination with other programs (<i>e.g.</i>, HEAP and WAP) 	In Progress
		• Enhance effectiveness of the EmPower referral process and improve customer conversion rate by conforming to consistent data file submission to NYSERDA	In Progress
		 Identify ways to enhance or add measures to the existing EmPower offerings, particularly for gas savings 	In Progress
		 Contract for new program workflow software and implementation support services 	In Progress
		 Increase awareness, community outreach and education through coordination with the new Clean Energy Hubs and existing utility outreach programs. 	In Progress
		 Work with NYS Clean Heat JMC to streamline customer access to both NYS Clean Heat and EmPower with 	Planning

		 appropriate affordability protections Outline and seek input on a plan to phase out support for fossil fuel fired equipped in GJGNY audits, financing, and LMI programs to align with Climate Act while 	Planning
2023	Launch of redesigned programs (milestone	 preserving energy affordability. Launch the combined, streamlined LMI 	In Progress
	moved to 2023 from 2021)	 program: EmPower+ Increase DAC access to EmPower+ by incorporating DAC geographic eligibility and coordinating with regional Clean Energy Hubs on targeted outreach to DACs 	Planning
		 Integrate EmPower+ and NYS Clean Heat offerings to increase access to incentives for electrification 	Planning
2024		 Evaluate program performance and optimize design to serve more homes and encourage more contractors to offer efficiency and electrification services through the program 	Planning
		 Launch Customer portal for increased customer engagement and project monitoring 	Planning
		• Increase contractor base and expand offerings to	Planning

meet increased climate	
goals	

Milestones marked as "Delayed" or "No Longer Applicable"

The "Launch of redesigned programs" milestone originally included for 2021 in the 2020 Implementation Plan is marked as "Delayed" in this Implementation Plan due to unforeseen unavailability of program management software and the need to procure new program workflow software and implementation support services to operate EmPower+. It is anticipated that new software and implementation support will be acquired and operational by 2023. Therefore, a new milestone for the "Launch of the combined, streamlined LMI program: EmPower+" has been added for 2023.

The "Calibration of programs, where necessary, to improve impact and reach underserved or otherwise disadvantaged communities" milestone originally included for 2022 in the 2020 Implementation Plan is marked as "No Longer Applicable" because it has been replaced with more specific and actionable milestones, such as the "Increase DAC access to EmPower+ by incorporating geographic eligibility and coordinating with regional Clean Energy Hubs on targeted outreach to DACs" milestone and the "Work with NYS Clean Heat JMC to streamline customer access to both NYS Clean Heat and EmPower with appropriate affordability protections" milestone.

Year	Milestone from 2020 Implementation Plan	Milestone Added or Updated in Current	Status
		Implementation Plan	
2020	Determine implementation structure and coordination among Program Administrators		Complete
	 Develop a consistent framework for an incentive program that promotes comprehensive upgrades but allows flexibility for prescriptive upgrades 		Complete
	• Develop process to coordinate technical assistance with incentive- based program		Complete

Statewide Existing Affordable Multifamily 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		Complete
2021	Launch consistent statewide framework for incentive-based program		Complete
	 Identify additional areas to streamline administration of program (milestone moved from 2021 to 2022) 		Delayed
	 Launch approach to working with housing agencies 		Complete
2022	 Identify additional areas to streamline administration of program (milestone moved to 2022 from 2021) 		In Progress
	• Calibration of programs, where necessary, to improve impact and reach underserved or otherwise disadvantaged communities (<i>milestone</i> <i>moved from 2022 to</i> <i>2023</i>)		Delayed
	 Ongoing stakeholder engagement and coordination with other programs (<i>e.g.</i>, NYS HCR, NYC HPD and housing agencies) 	 Expand direct funding partnership between NYSERDA and NYS HCR to serve affordable housing new construction and preservation 	Complete

	• Develop Program Administrator processes for statewide operations of AMEEP (<i>e.g.,</i> document updates) and launch webinar series to engage Participating Contractors and Industry Partners by Q2	In Progress
	 Coordinate AMEEP incentives with NYS Clean Heat and align release to market with NYS Clean Heat announcement cycles for program changes 	In Progress
	 NYSERDA to support housing agencies in development of sustainability/design guidelines for efficient, all-electric new construction and retrofit projects 	Complete
	 Issue Clean Heat for All packaged window heat pump RFP through partnership between NYSERDA, NYPA, and NYCHA 	Complete
	 Along with NYCHA and NYPA, select winning manufacturer(s) that responded to Clean Heat for All packaged window heat pump challenge RFP 	In Progress
	 Provide technical assistance and staffing resources to assist with 	In Progress

		capacity-building at HCR and HPD	
2023	• Calibration of programs, where necessary, to improve impact and reach underserved or otherwise disadvantaged communities (<i>milestone</i> <i>moved from 2022 to</i> <i>2023</i>)	 Organize stakeholder interviews on AMEEP design and operations based on the first full year of operation to get feedback to guide analysis and potential program changes, and adapt program eligibility to reflect final DAC criteria 	Future
		 Review program objectives and operations to enable alignment with potential policy changes scheduled to take place in 2022 and 2023 (<i>e.g.</i>, NENY mid- point review, Climate Act definition of providing benefits to DACs) 	Future
		 Issue initial small purchase order for and install initial packaged window heat pumps in NYCHA properties as part of 'demonstration phase' of Clean Heat for All initiative 	Future
2024		 Study creation of measure packages for comprehensive retrofits by building typology based on data from AMEEP participants, and assess 	Future

	 ability to offer packages as part of AMEEP Assess viability of packaged window heat pumps as an effective electrification approach/model for NYCHA housing and broader NY multifamily market 	Future
	 Pending success of demonstration phase, initiate broader implementation phase of Clean Heat for All initiative and install additional packaged window heat pumps 	Future

Milestones marked as "Delayed"

The "Identify additional areas to streamline administration of program" milestone originally included for 2021 in the 2020 Implementation Plan was moved to 2022 and marked as "In Progress" in this Implementation Plan because the Program Administrators began work on streamlining administration of the program in 2021, such as using only two Implementation Contractors statewide for AMEEP. The Program Administrators believe that this is an ongoing milestone that merits additional analysis following the launch of AMEEP in late 2021.

The "Ongoing stakeholder engagement and coordination with other programs (*e.g.*, NYS HCR, NYC HPD and housing agencies)" milestone has been replaced with more specific and actionable milestones, such as the "Expand direct funding partnership between NYSERDA and NYS HCR to serve affordable housing new construction and preservation" milestone, and the "Launch webinar series to engage Participating Contractors and Industry Partners by Q2" milestone.

Similarly, the "Calibration of programs, where necessary, to improve impact and reach underserved or otherwise disadvantaged communities" milestone originally included for 2022 in the 2020 Implementation Plan was moved to 2023, and the language was refined to read "Organize stakeholder interviews on AMEEP design and operations based on the first full year of operation to get feedback to guide analysis and potential program changes." While the original milestone will indeed be an ongoing effort throughout 2022, the Program Administrators reframed the milestone to be more actionable.

Year	Milestone from 2020 Implementation Plan	Milestone Added or Updated in Current Implementation Plan	Status
2020	 Develop process to coordinate technical assistance with incentive- based program 		Complete
	 Work with housing agencies and financiers to identify gaps in available performance data and 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 		In Progress
2021	 Launch technical assistance in a coordinated approach with the incentive-based program 		Complete
	 Identify additional opportunities to work with housing agencies and financiers to develop initiatives to aid in project development 		In Progress
		 Identify technical assistance provider to service NYSERDA/ NYC 	Complete

Technical Assistance for Affordable Multifamily Buildings

		HPD electrification pilot ¹¹⁶	
		 Identify projects for the NYSERDA/ NYC HPD electrification pilot 	In Progress
		 NYSERDA will offer FlexTech services for AMEEP projects that pay SBC on gas but not electric 	In Progress
		 NYSERDA will assess how technical assistance feeds into and informs the development and completion of the 2M climate friendly homes by 2030 action plan 	In Progress
		 Clean Heating and Cooling Analysis of FlexTech studies that will help inform future program development and is intended to increase the rate at which clean energy technologies are identified through studies or best practices 	In Progress
2022	 Calibration of programs, where necessary, to improve impact and reach underserved or otherwise disadvantaged communities. 	 Update program eligibility to increase access in disadvantaged communities 	Planning
	 Ongoing stakeholder engagement and coordination with other 	 Engage with NYS HCR colleagues, affordable housing owners, and 	In Progress

¹¹⁶ Additional historical milestones for 2021 (*i.e.*, as compared to the 2020 Plan) are provided here to reflect additional detail for Technical Assistance for Affordable Multifamily Buildings.

	programs (<i>e.g.,</i> NYS HCR, NYC HPD and housing agencies)	developers to refine integration of technical assistance within housing financing application processes• Encourage energy service providers to include electrification 	
2023		 Provide technical assistance resources to housing agencies to build in-house capacity to assess and support sustainability as part of core mission 	
		 Require consideration of electrification and/or electrification readiness as part of any subsidized technical assistance to enable long-term building decarbonization efforts 	

RetrofitNY

Year	Milestone from 2020 Implementation Plan	Milestone Added or Updated in Current Implementation Plan	Status
2021	 One or more solutions are built and tested through the design-build competition process 		In Progress
	 Solution(s) are adapted to additional building typologies 		In Progress
2022	 Integration of retrofit solutions in the public 		Delayed

2023	 housing authorities' and affordable housing regulators' preservation strategies (<i>milestone moved from 2022 to 2023 and 2024</i>) Integration of retrofit solutions in the public housing authorities' and affordable housing regulators' preservation strategies (<i>milestone moved to 2023 from 2022</i>) 	• Integration of retrofit solutions in the public housing authorities' strategies (<i>milestone moved to 2023 from 2022</i>)	In Progress
2024	• Integration of retrofit solutions in the public housing authorities' and affordable housing regulators' preservation strategies (milestone moved to 2024 from 2022)	• Integration of retrofit solutions into regulated affordable housing preservation strategies (milestone moved to 2024 from 2022)	Future
2025	 Retrofit solutions are cost effective and NYSERDA subsidies are no longer necessary. 	 Deliver retrofit solutions that are cost effective such that NYSERDA subsidies are no longer necessary 	Future
	 Building components and systems required for deep energy retrofits are readily available in the New York market. 	 Develop a market for building components and systems required for deep energy retrofits so that they are readily available in New York 	Future
	• Financing solutions exists for building owners to purchase these solutions with minimal upfront cost.	 Support creation of financing solutions to enable building owners to take advantage of these solutions at scale 	Future

Milestones marked as "Delayed"

The "Integration of retrofit solutions in the public housing authorities' and affordable housing regulators' preservation strategies" milestone was delayed from 2022 to 2023 and 2024 because of impacts related to COVID-19. Due to stalled pipelines, demonstration projects were substantially delayed in financial closings with the housing agencies and could not enter construction.

Affordable New Construction

Year	Milestone from 2020 Implementation Plan	Milestone Added or Updated in Current Implementation Plan	Status
2020	Existing programs will continue		Completed
	 Design of coordinated offerings between NYSERDA and utilities 		No Longer Applicable
2021	Launch of coordinated program offerings		No Longer Applicable
	 Launch of high- performance demonstrations and competitions 		Complete
2022	 Launch of high- performance demonstrations and competitions 		Complete
	 Incorporation of lessons learned from previous demonstrations and competitions 		Complete
		 Launch of Round 3 of the Buildings of Excellence Multifamily Design Competition 	In Progress
		• Expand integrated funding with State and local affordable housing agencies	In Progress
2023		• Continue expanding integration with public housing agencies	In Progress
		• Utilize data and successful sets from	In Progress

	decarbonization projects to deploy information through Channel Partners, conferences, and other general awareness activities
2024	Continue expanding Future integration with public housing agencies
	 Utilize data and successful sets from decarbonization projects to deploy information through Channel Partners, conferences, and other general awareness activities Future
2025	 Continue expanding integration with public housing agencies Future
	 Utilize data and successful sets from decarbonization projects to deploy information through Channel Partners, conferences, and other general awareness activities

Milestones marked as "No Longer Applicable"

The "Design of coordinated offerings between NYSERDA and utilities" milestone originally included for 2021 in the 2020 Implementation Plan is no longer applicable as the milestones have evolved with the New Construction portfolio. NYSERDA will continue to coordinate with Utilities throughout all sectors of the LMI portfolio.

Beneficial Electrification in LMI Homes

Year	Milestone from 2020 Implementation Plan	Milestone Added or Updated in Current Implementation Plan	Status
	• 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		Complete
2020	 Design of short-term incentives 	 Design and launch short-term incentives to offset costs of heat pump installations in LMI homes and affordable multifamily buildings to advance heat pump deployment in LMI housing and support future market learnings¹¹⁷ 	Complete
2021	• Continued research and analysis		No Longer Applicable
	 Launch of short-term incentives to offset costs of heat pump installations in LMI homes or affordable multifamily buildings 		Complete
	• Launch pilots and demonstrations		Delayed

¹¹⁷ This historical milestone for 2020 is updated (*i.e.*, as compared to the 2020 Plan) to provide additional detail regarding short-term incentives.

	•	Assess lessons learned from research, analysis, pilots, and incentive offerings			In Progress
2022	•	Continued pilots and demonstrations			No Longer Applicable
	•	Continued incentive offerings			No Longer Applicable
	•	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			No Longer Applicable
			•	Launch evaluation and market insights study based on projects completed through short-term incentive offering incentive offerings	In Progress
			•	Publish LMI chapter within Building Electrification Roadmap, outlining key policy approaches to scale LMI electrification through 2030	In Progress
			•	Partner with sister agencies to aggressively shift existing benefit programs into alignment with the State's housing decarbonization targets, especially LIHEAP, WAP, and the State's Energy	In Progress

r		
	Affordability Policy	
	and Utility Energy	
	Assistance Programs	
•	Conduct research and analysis leading to the development of an Affordability and Consumer Protections	Planning
	framework for LMI Electrification, outlined in the Two Million Climate- Friendly Homes Action Plan	
•	Continue programmatic support for LMI heat pump installations, with a focus on segments that present the least technical difficulty and/or the most favorable return on investment, including buildings using delivered fuels and electric resistance heat, buildings with inefficient gas furnaces or boilers, and multifamily buildings with steam distribution systems	Planning
•	Design and launch a program offering supporting rapid response heat pump conversions in situations where existing fossil heating systems are at or near failure	Planning
•	Launch additional program support for	Planning

LMI multifamily	[]
building owners	
seeking to integrate	
electrification into	
their portfolio by	
providing	
wraparound services	
for guidance on	
capital planning,	
identifying best-fit	
technology	
solutions, employee	
training, project	
scoping, how to	
overcome hurdles	
related to existing	
subsidy agreements	
and tenant leases,	
and identifying incentives and other	
financial support for	
installing heat	
pumps	Dianning
 Design pilot(s) 	Planning
supporting DHW	
electrification	
conversions for	
multifamily buildings	
Launch research	Planning
focused on policy	
and regulatory	
initiatives that can	
further enable heat	
pump adoption in	
LMI housing	
Conduct Stakeholder	Planning
engagement to	
develop promising	
approaches for	
community- and	
place-based	
interventions	
supporting heat	
pump deployment in	
LMI and	
Disadvantaged	
Communities	

		Develop and launch additional educational materials for LMI customers and building owners, including short how- to videos and other multimedia offerings	Planning
		In collaboration with DPS and the utilities, identify the scope of and pathway to increased support for pre- electrification make- ready work such as electrical panel upgrades	Planning
2023	•	Publish interim learnings from the single-family LMI heat pump demonstration study (short term incentives)	Future
		Publish interim learnings from the multifamily LMI heat pump demonstrations study (short term incentives)	Future
		Revise program rules to incorporate learnings from affordability and consumer protections research	Future
2024	•	Publish interim learnings from pilots and demonstrations	Future
	•	Revise program rules to incorporate affordability and	Future

consumer protections learnings from	
research and evaluation of real- world projects	

Milestones marked as "Delayed" or "No Longer Applicable"

The milestones marked as "Delayed" and "No Longer Applicable" have evolved and are combined with new milestones noted above.

Year	Milestone from 2020 Implementation Plan	Milestone Added or Updated in Current Implementation Plan ¹¹⁸	Status
2020		 Finalize specification list for the Healthy Homes intervention associated with the pilot 	Complete
		 Onboard energy services implementation contractor and health services implementation partners 	Complete
		 Secure submission of social determinants of health template for VBP Arrangement integration 	Complete
		 Finalize specification list for healthy homes interventions that address asthma and household injury 	Complete

New York State Healthy Homes Value-Based Payment Pilot

¹¹⁸ Milestones for 2020 and 2021 are included here for New York State Healthy Homes Value-Based Payment Pilot and were not included in the 2020 Implementation Plan.

2021	 Release a Request for Qualifications for pilot participating energy/housing service providers and assign pilot participation status to qualified providers 	Complete
	Commence pilot field work	Complete
2022	 Complete value-based payment participation toolkits for MCO/VBP providers and community-based organizations 	In Progress
	 Commence interim reporting on Year One intervention implementation process 	Planning
2024	• Complete draft of the full evaluation report	Planning

LMI Portfolio Marketing

Year	2020 and 2021 "Key Milestones" from 2020 IP ¹¹⁹	Milestone Added or Updated in Current	Status
		Implementation Plan	
2020	Statewide Brand:		In Progress
and	• The Program		
2021	Administrators expect to		
	complete development by		
	the first quarter of 2021		

¹¹⁹ Note that the milestones listed in this column were not provided within milestones tables in the 2020 Implementation Plan. Rather, information is drawn from descriptions of Key Milestones in the 2020 Implementation Plan.

2020	NY Energy Advisor:		Complete
and	• During Q3 of 2020, the		Complete
	Program Administrators		
2021	expect to launch an initial		
	version of the NY Energy		
	Advisor website, introducing		
	customers and affordable		
	housing property owners to		
	the current initiative offerings		
	 The full NY Energy Advisor 		
	website will be launched by		
	end of Q2 2021		
2020	Hard Copy Customer Education		In Progress
and	Collateral and Multilingual		
2021	Communications:		
	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		
2020	Community-Based Marketing		In Progress
and	and Paid Advertising:		
2021	• Specific media and paid		
	advertising approaches will		
	be developed and		
	coordinated with the		
	statewide campaign and as		
	initiatives are		
	added/changed in the		
	Portfolio		
2022		NY Energy Advisor:	In Progress
		• Launch a marketing	
		campaign for the NY	
		Energy Advisor in Q1	
		2022 that will continue	
		through 2025	
		Hard Copy Customer	In Progress
		Education Collateral and	
1		Multilingual	

	Communications	
	Communications:	
	Develop and distribute	
	to stakeholders hard	
	copy customer collateral	
	beginning in Q1 2022 in	
	parallel with operation	
	of the online NY Energy	
	Advisor, to ensure	
	consistent messaging	
	and calls to action and	
	to streamline	
	development costs.	
	Materials available in	
	multiple languages	
	include posters and fact	
	sheets.	
	Community-Based	In Progress
	Marketing and Paid	
	Advertising:	
	• Specific media and paid	
	advertising approaches	
	will be developed and	
	coordinated with the	
	statewide campaign and	
	as initiatives are	
	added/changed in the	
	Portfolio	
2023	NY Energy Advisor:	Future
	 Review NY Energy 	
	Advisor analytics,	
	determining	
	effectiveness of	
	marketing campaigns	
	 Make adjustment to 	
	paid media campaigns if	
	needed	
	 Continue to support the Program Administrators 	
	and stakeholders'	
	efforts to obtain earned	
2024	media	Future
2024	NY Energy Advisor:	Future

	•	Continue to analyze NY	
		Energy Advisor	
		marketing campaigns	
		and make corresponding	
		campaign adjustments	

Community-Based Outreach, Education, and Engagement Partnerships

Year	2020 and 2021 "Key	Milestone Added or	Status
TEal	Milestones" from 2020 IP		Status
	Milestones from 2020 IP	Updated in Current	
		Implementation Plan	
2020	Expansion of Existing LMI		In Progress
and	Community Partnerships:		
2021	 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. This co-		
	design process began in		
	early 2020 and will inform		
	the design of the		
	subsequent community		
	engagement initiative.		
2020	Neighborhood-Based Delivery		In Progress
and	Model:		U
2021	 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 rollout would be Q3 2021.		
2022		 The Regional Clean Energy Hub network will be launched in Q3 2022, incorporating input from the 2020 co-design process with community partners to improve the reach and impact of outreach and engagement efforts within disadvantaged communities 	In Progress
2023		 Hubs fully onboarded in the market and working with local communities to support and streamline program engagement 	Future
2024		 Hubs to begin launching community campaigns and local pilot programs 	Future

Community-Based Customer Engagement Initiatives

Year	2020 and 2021 "Key Milestones" from 2020 IP	Milestone Added or Updated in Current Implementation Plan	Status
2022		Community-Based Customer Engagement Initiatives: • Central Hudson plans to continue their Community Lighting Program and will distribute LEDs	In Progress

through Food Banks
and the United Way
starting again in 2022.
Con Edison will
continue to offer
energy efficiency kits
via an opt-in approach
to customers
participating in Con
Edison's Energy
Affordability Program
(formerly called the
Low Income Discount
Program) and to
collaborate with food
pantries to distribute
LED lightbulbs.
 National Grid will
expand their LED Food
Bank program to the
Albany and Syracuse
areas and will increase
frequency to twice
per year with continued
collaboration with
NYSEG/RGE
Orange & Rockland
will expand their food bank kit offering and
will provide energy
efficiency kits via an
opt-in approach for
customers
participating in the
Company's Energy
Affordability Program.
Additionally, Orange
& Rockland will
expand the existing
MY ORU Store e-
commerce platform
to include additional
functionality that
includes new tools,

	products, and	
	offerings that will	
	specifically engage	
	and guide LMI	
	customers to make	
	energy-wise	
	decisions for their	
	homes.	
	Neighborhood-Based Delivery	In Progress
	Model:	
	• During the balance of	
	2022, 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. This	
	event/outreach	
	strategy would be	
	implemented	
	beginning in 2022	
	after final evaluation	
	results are	
	determined.	

Year	Milestone from 2020 Implementation Plan	Milestone Added or Updated in Current Implementation Plan	Status
2022		 Continued ongoing meetings between Program Administrator VGS teams 	In Progress
		 Refine and finalize standardized survey questions to be used when conducting process evaluation research 	In Progress
		 Complete 2017-Q1 2019 evaluation of EmPower NY Program, on target to be finished by NYSERDA in Q4 2022 	In Progress
		 Begin to develop and implement average existing condition baselines, facilitated through the TRM Management Committee, and identify key LMI measures for further research 	In Progress
		 Select EM&V vendor for AMEEP evaluations to be undertaken in 2023 	Planning
		 Assess impact of NYS Clean Heat coordination with AMEEP and any resulting evaluation needs 	Planning
2023		Begin EmPower+ evaluation process	Future
		 Develop the workplan and conduct statewide evaluation for AMEEP, as operated in 2022 	Future

Evaluation, Measurement, & Verification Approach