

New York State Healthy Homes Value-Based Payment Pilot Evaluation Consulting Plan

Market Evaluation

Final

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Pilot Background

NYSERDA is piloting a residential Healthy Homes Value-Based Payment Pilot (Pilot) in partnership with the New York State Department of Health (DOH).¹ The Pilot is targeting households that include a resident age 0 - 17 with poorly-controlled asthma; the Pilot seeks to deliver interventions to 500 households over a two-year period.

A residential healthy homes intervention is comprised of not only energy efficiency/weatherization measures (e.g. insulation, air sealing), but also environmental trigger reduction measures (e.g. moisture/mold mitigation, integrated pest management, carpet removal), and household injury prevention measures (e.g. smoke and carbon monoxide alarms, stair repair, electrical outlet covers). DOH refers to NYSERDA's healthy home services as Energy/Housing Services; however, this consulting services plan will use "dwelling-based services" in this document to emphasize the encompassing of measures beyond energy.

In tandem with these services, the intervention includes in-home visits from a Registered Nurse and the assignment of a Community Health Worker to support each Pilot household throughout all services. When implemented within target population households, these interventions can improve occupant health, reduce energy bills, improve the comfort and safety of the home, and may result in healthcare cost savings for New York State. Additional details about the Pilot can be found in Appendices B and C.

NYSERDA is responsible for measuring energy outcomes of the dwelling-based services provided in the intervention; the current strategy is healthcare providers will collect health related data, in the time pre and post NYSERDA services. NYSERDA's impact evaluation of those outcomes will be conducted in 2021-2022. It is anticipated that the contractor for that impact study will be chosen in 2021.

Pilot Evaluation Overview

The Pilot evaluation is planned as a partnership between NYSERDA and DOH, specifically DOH's Office of Public Health. There are three primary components to the evaluation planning strategy: a Pilot Strategic Evaluation Plan (i.e., the overall evaluation), a Health Services Individual Evaluation Plan, and an Energy/Housing Services Individual² Evaluation Plan.

- DOH is responsible for developing a Pilot Strategic Evaluation Plan, a living document designed to guide comprehensive evaluation of the Pilot and integrate DOH's Health Services Individual Evaluation Plan and NYSERDA's Energy/Housing Services Individual Evaluation Plan, for collectively achieving the objectives of both NYSERDA and DOH. The Strategic Plan will include a logic model, evaluation questions, methodology, and additional components necessary to evaluate Pilot impact/outcomes.
- DOH is responsible for developing Health Services Individual Evaluation Plan for evaluation of Pilot impacts related to intervention health services. The Health Services Individual Evaluation Plan will be informed by the Strategic Plan.

¹ See Appendix A for Logic Model of Pilot.

² The use of the term "Individual" to distinguish between the Energy/Housing Services Evaluation Plan and the Health Services Evaluation Plan is part of the DOH evaluation nomenclature.

- NYSERDA is responsible for developing an Energy/Housing Services Individual Evaluation Plan for evaluation of Pilot impacts related to intervention dwelling services, including energy impacts. The Energy/Housing Services Individual Evaluation Plan will be informed by the Strategic Plan.

In addition, a Pilot Evaluation Guidance Group will be convened to provide insight into evaluation planning. DOH and NYSERDA will cooperate on the selection and convening of the Pilot Evaluation Guidance Group, with the objective of gleaning insight on evaluation planning from those with direct experience in the fields in which the Pilot will be operating. The group will be comprised of stakeholders from the healthcare, energy efficiency, and healthy housing fields. The group will meet formally on a bi-monthly basis (every other month) for the period of one year, with remote participation facilitated. Subgroups of the larger group will meet on an ad hoc basis regarding specified topics that require focused attention.

Roles of Project Team

The Contractor is responsible for developing the Energy/Housing Individual Evaluation Plan, ensuring that the metrics for executing that work are identified, and a process for collecting these metrics is detailed. NYSERDA is seeking guidance in evaluating the full suite of dwelling-services (i.e., energy/housing services) of: Energy efficiency/weatherization; Environmental trigger reduction; Household injury prevention.

If the Contractor does not have the requisite expertise in-house to successfully assist NYSERDA in completing the tasks listed in subsequent sections of this plan, the Contractor shall acquire the services of a firm to conduct these tasks in a manner consistent with its Agreement 14049 with NYSERDA. Contractor shall supply NYSERDA with documentation that shows the procurement method used to acquire such services.

The Contractor will provide independent evaluation consulting services and support to NYSERDA Program Staff with reference to the Pilot Strategic Evaluation Plan. Given the partnership between NYSERDA and DOH, NYSERDA program staff shall guide the relationship between DOH and the Contractor; and the Contractor shall serve as NYSERDA's consultant exclusively.

The Evaluation Project Manager (PM) and/or PM's designee will serve as the main point of contact for this evaluation and shall assist the selected Contractor in developing and implementing this Evaluation Plan.

Evaluation Consulting Approach

Table 1: Evaluation Objectives and Main Research Questions

Objective	Related Question(s)	Data Source(s) & Analytic Method(s)
Assist with the formulation and documentation of the Energy/Housing Services Evaluation Plan	<ul style="list-style-type: none"> • What metrics can be measured in a concrete manner to quantify the dwelling services component of the pilot intervention? • What is the methodology for data collection and when? • Who will be responsible for capturing metrics? 	n/a
Review and provide input/comments/guidance on the cogency and soundness of the Strategic Evaluation Plan as it relates to Pilot goals and to NYSERDA goals	<ul style="list-style-type: none"> • Does the evaluation plan propose meaningful metrics to quantify the dwelling services component of the pilot intervention? • Can the metrics be measured in a concrete manner to quantify the dwelling services component of the pilot intervention? • What is the methodology for data collection and when? • Who will be responsible for the capturing metrics? 	n/a
Dwelling Services include measures for: a) Energy efficiency/weatherization; b) Environmental trigger reduction; and c) Household injury prevention. Details provided as Appendix C.		

Methodology for Evaluation Consulting

Providing expert review and reactions to the Pilot Strategic Evaluation Plan and related evaluation components, as well as providing expert guidance in assisting with the formulation and documentation of the Individual Energy /Housing Services Evaluation Plan and related components shall include but not be limited to:

- Defensible methodology
- Justifiable assumptions related to evaluation methodology
- Ensuring reasonable baselines
- Ensuring measurable benefits
- Ensuring appropriate means of measurement
- Ensuring related Pilot reporting requirements are able to be met

In order to execute this evaluation plan, the Contractor shall have expertise in or seek a firm with expertise in:

- Healthcare
- Energy Benefits
- Weatherization Energy and Health Benefits

Success of the Contractor’s contribution to the Pilot will be dependent in part on the Contractor’s ability to:

- Establish and maintain co-operative working relationships with NYSERDA staff, DOH staff, and others involved in the projects,

- Remain flexible with regard to the evolving Pilot Strategic Evaluation Plan, the input of the Evaluation Guidance Group, and the associated affect this may have on the Individual Energy/Housing Services Evaluation Plan.

Tasks, Budget and Schedule

Timeliness and ability for quick turnaround as outlined in this plan is crucial. For purposes of this evaluation plan, the tasks and timeframes are defined as follows:

Task 1: Project Kick-Off and Evaluation Consulting Plan Finalization

Participate in webinar kick-off meeting with NYSERDA evaluation and program staff to discuss project details and project schedule. Update this Evaluation Consulting Plan, if needed.

- Deliverables –
 - Draft and final agendas for the project kick-off meeting
 - Final Evaluation Consulting Plan (i.e., this document) within 1 week of meeting

Following successful completion of Task 1, the project manager will notify the Contractor in writing that the evaluation plan has been finalized.

Task 2: Pilot Strategic Evaluation Plan Review and Input

The Contractor shall provide guidance to NYSERDA’s Program and Evaluation Project Managers with reference to the Pilot Strategic Evaluation Plan (Strategic Plan) referenced under *Pilot Evaluation Overview* in this document. The Contractor shall be responsible for providing expert review of and reaction to the Strategic Plan and related evaluation components, including overall methodology, data sources, evaluation questions, and logic model. Guidance will confirm or improve upon the cogency and soundness of the Strategic Plan as it relates to Pilot goals and to NYSERDA’s goals. Given the partnership between NYSERDA and DOH, NYSERDA program staff shall guide the relationship between DOH and the Contractor, and the Contractor shall serve as NYSERDA’s consultant exclusively. Activities related to the Strategic Plan are listed below.

- Deliverables –
 - Memoranda to capture guidance and decision making, as necessary – timeline(s) to be determined by NYSERDA

Task 3: Energy/Housing Services Individual Evaluation Plan Development

Provide expert assistance in developing the Energy/Housing Services Individual Evaluation Plan (Individual Plan) and related evaluation components including, but not limited to, overall methodology, data sources and collection, evaluation questions, and logic model.

Assist NYSERDA’s Evaluation Project Manager in formalizing and finalizing the Individual Plan and ensuring it is in alignment with Pilot goals and NYSERDA’s goals. Use expertise to 1) focus on feasibility

and effectiveness in meeting rigorous evaluation standards; 2) ensure the plan require collection of metrics necessary to measure outcomes of intervention dwelling services.; 3) ensure design explains how metrics will be collected and who is responsible for doing so; 4) review for potential barriers to successful evaluation and suggest paths for resolution.

- Deliverables –
 - Memoranda to capture guidance and decision making, as necessary – timeline(s) to be determined by NYSERDA
 - Draft Energy/Housing Services Individual Evaluation Plan– timeline to be determined by NYSERDA

Task 4: Pilot Evaluation Guidance Group Activities

The Contractor shall provide guidance to NYSERDA’s Program and Evaluation Project Managers with reference to the Pilot Evaluation Guidance Group (Group) jointly facilitated by DOH and NYSERDA. The Contractor shall be responsible for attending Group meetings, to be scheduled every other month, in addition to attending ad hoc subgroup meetings on specified topics, when applicable. Remote attendance can be facilitated in all cases.

The Contractor shall provide perspective on best practices for incorporating the insight of the Group into the Strategic Plan and Individual Plan noted in Tasks 2 and 3.

Upon conclusion of the Group, the Contractor shall provide a summary report addressing the strengths and weaknesses of how the Group was managed and incorporated, intended to provide guidance toward improvement in future projects. Activities related to the Pilot Evaluation Guidance Group include:

- Deliverables –
 - Memoranda to capture guidance and decision making, as needed and upon request by NYSERDA and within timeline determined by NYSERDA.
 - Memorandum to capture strengths and weaknesses of overall management of the Evaluation Guidance group, upon conclusion of the Group, as needed and upon request by NYSERDA and within timeline determined by NYSERDA.

Task 5: Ad Hoc Tasks and Research

If the need for additional research or tasks related to Pilot evaluation is identified by either party during the course of the activities outlined in Tasks 1-4 in this document, the Contractor shall perform ad hoc tasks agreed upon by the parties.

- Deliverables –
 - As determined necessary by NYSERDA

Task 6: Data Transfer and Data Destruction– if applicable

Prepare data for dissemination as requested by NYSERDA. Transfer all confidential, data, and associated analytical files to NYSERDA via SharePoint.

Upon conclusion of the evaluation work, and after transferring all data files to NYSERDA, any confidential customer data used as part of the evaluation must be destroyed by the Contractor and the Contractor must counter sign a letter to NYSERDA certifying this has occurred.

- Deliverables –
 - Data Transfer: All project related data.
 - Data Destruction: 1) Counter signed letter sent to NYSERDA upon destruction of confidential data and 2) an E-mail sent to NYSERDA upon destruction of all other project data.

Task 7: Project Management

Attendance at conference calls and meetings with NYSERDA, management, staff and NYSERDA-designated parties and presentations to such groups, including DOH.

Participation in regular check-in status calls with NYSERDA Evaluation and Program staff no less than bi-weekly or as determined by NYSERDA.

The Contractor shall also provide progress reports in conjunction with the calls demonstrating activity during the timeframe since the previous call. These reports shall be submitted to NYSERDA in advance of the status calls.

Monthly progress reports should be submitted with invoices.

- Deliverables
 - –biweekly and monthly progress reports

Budget Summary

The total budget for this study is \$199,247.

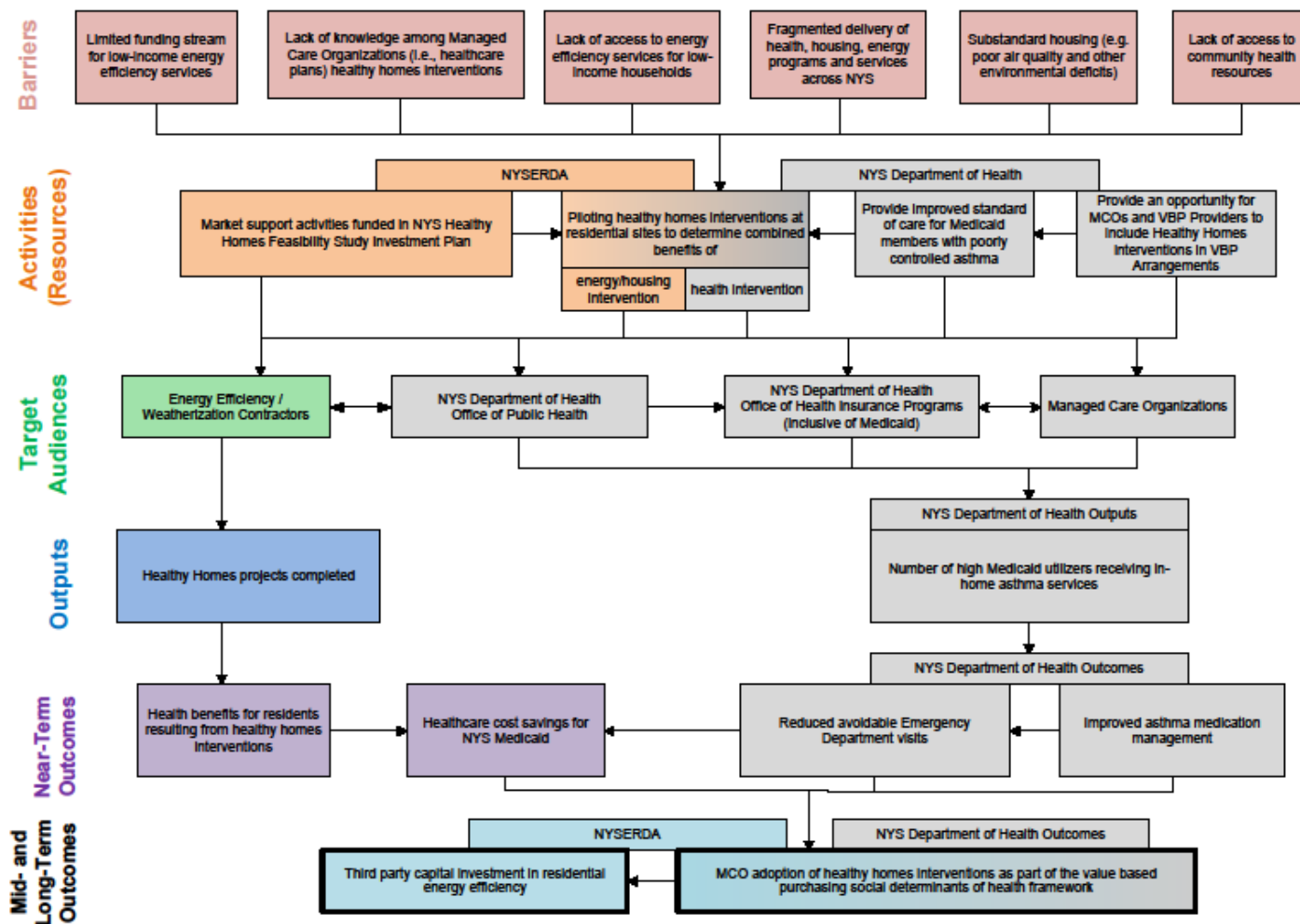
Invoicing Guidelines

Invoices should be structured to clearly delineate the staff hours and costs associated with each of the individual tasks included in this section. Any potential deviations from the agreed-upon task budgets must be discussed with the NYSERDA project manager as soon as possible and prior to the continuation of work. In general, small changes to original task-level budgets will be acceptable following discussion with NYSERDA, while larger task-level budget changes that substantially affect the overall study budget will require written justification and NYSERDA approval.

Appendix A

LOGIC MODEL: New York State Health Homes Pilot:

A Pilot Jointly Administered by NYSERDA and NYS Department of Health (Grey boxes = DOH only)



Appendix B

Description of full Pilot Activities

The New York State Healthy Homes Value-Based Payment Pilot (Pilot) is being planned and implemented as partnership between the New York State Energy Research and Development Authority (NYSERDA) and the New York State Department of Health (DOH). The Pilot seeks to develop a replicable model for implementing a healthy homes approach to residential building improvements under the Medicaid Value-Based Payment (VBP) framework. The Pilot seeks to deliver residential healthy homes interventions to 500 households in targeted regions of New York State over a two-year period. For the purposes of this Pilot, a healthy homes intervention is comprised of the following dwelling-based services: energy efficiency/weatherization measures, environmental trigger reduction measures, and household injury prevention measures. In tandem with these services, the intervention includes in-home visits from a Registered Nurse and the assignment of a Community Health Worker to support each Pilot household throughout all services. When implemented within target population households, these interventions can improve occupant health, reduce energy bills, improve the comfort and safety of the home, and may result in healthcare cost savings for New York State.

Concurrently, the Pilot seeks to demonstrate a sustainable model for delivering these services beyond the established Pilot period and Pilot locations by providing market development support, such as specification of services and VBP contracting guidance. The market opportunity for these services is aligned with recent changes to New York State healthcare policy that allows for services such as the healthy homes interventions included in the Pilot to be contracted directly by healthcare managed care organizations (MCO) and/or healthcare provider networks, through Medicaid value-based payment risk-sharing agreements required to address social determinants of health (SDH). Planned market support activities will prepare Pilot participating CBOs and contractors to engage this opportunity beyond the Pilot activities.

In alignment with NYSEDA's overall energy efficiency goals, validating healthy homes intervention impacts such as healthcare cost savings and benefits to residents while providing market development support encourages third party capital investment in residential energy efficiency through MCO adoption of healthy homes interventions within the VBP framework focused on addressing SDH. The Pilot will support development of cross-sector systems and processes to achieve sustainability of healthy homes interventions that integrate health, energy, and housing.

DEFINITIONS

Value-based Payment – New York State Medicaid is transitioning from a fee-for-service delivery system to a managed care system with a value-based payment (VBP) model that links healthcare provider performance and reimbursement through a pre-determined set of quality metrics. Under the VBP model, managed care organizations (MCO) (i.e. health care plans) enter into risk-sharing arrangements with health care providers or provider networks (i.e. physicians' groups, hospitals) to jointly pursue shared goals of reducing health care costs, increasing efficiency, and improving quality.

Social Determinants of Health - New York State requires that risk-based VBP arrangements (Level 2 and Level 3 agreements) include social determinants of health (SDH) interventions and contracting with one or more community-based organizations (CBO). Among the five key areas of SDH outlined in the DOH *Social Determinants of Health Intervention Menu*, the Pilot is positioned to impact multiple categories including Health and Health Care, Economic Stability, Education and Neighborhood and Environment. The category of Neighborhood and Environment includes “substandard housing” as a determinant and outlines funded interventions and standard metrics associated with healthy homes interventions. Interventions addressing substandard housing to improve poor air quality and other environmental deficits can support trigger reduction and reduce asthma exacerbations and related morbidity and mortality. The substandard housing determinant places energy efficiency and weatherization measures, when incorporated within a healthy homes intervention, within the DOH VBP model.

Healthy Homes Intervention – Within the parameters of the Pilot, 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 aimed at household injury prevention (smoke and carbon monoxide alarms, stair repair, electrical outlet covers). When implemented together, these interventions can improve occupant health, reduce energy bills and healthcare costs, and improve the comfort and safety of a home.

Appendix C

Pilot Dwelling Measures

Healthy Homes Pilot Assessment

Pilot-specific residential dwelling assessment, including identification of needed energy efficiency measures, environmental trigger reduction measures, and home injury prevention measures

Energy Efficiency Measures

<ul style="list-style-type: none"> - Insulation - Air sealing - Heating unit clean and tune, repairs, and replacement 	<ul style="list-style-type: none"> - Replacement of air filters in HVAC system - Installation of programmable thermostat - Refrigerator/freezer replacement 	<ul style="list-style-type: none"> - Installation of LED light bulbs - Installation of low flow showerheads
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Environmental Trigger Reduction Measures

<ul style="list-style-type: none"> - Range stove clean and tune up - Range stove replacement and installation - Kitchen exhaust fan - repair/install - Bathroom exhaust fan - repair/install - Dryer venting - Carpet removal and installation of replacement flooring - Carpet steam cleaning - Integrated Pest Management - Regular - Integrated Pest Management - Expanded 	<ul style="list-style-type: none"> - Mold remediation (less than 10 ft²) - Mold remediation (greater than 10 ft²) - Window air conditioner and installation - Dehumidifier (with built-in pump) and installation - basement - Dehumidifier - room - Humidifier and installation - room unit - Dirt floor vapor barrier and installation - Roof repair - Gutter/Downspout system - repair/replacement - Cleaning of gutters and installation of gutter screens 	<ul style="list-style-type: none"> - Plumbing - repair to supply and waste lines - Plumbing - faucet replacement - Ventilation system - Repairs to Condensate Drain - Repairs to boilers (steam and water) - Basement Water proofing - Coatings - Basement Water proofing - Drainage systems - Basement Water proofing - Sump pump repair/replacement
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Home Injury Prevention Measures

<ul style="list-style-type: none"> - Smoke detectors - Carbon monoxide detectors - Anti-scalding devices - Shower seat with feet grips - Tub/shower safety grab bar - Toilet safety grab bar - Toilet safety frame 	<ul style="list-style-type: none"> - Grip strips for bathtub - Tip resistant furniture anchors and installation - Window repair/replacement - Handrail – interior/exterior – repair/installation - Walkway repair - Stair gripper treads, non-slip, and installation - Repair to damaged floors or stairs - Threshold lowering/repair 	<ul style="list-style-type: none"> - Porch repair - Exterior motion sensor lights - Installation of LED nightlights with day/night sensors - Cabinet safety latches and installation - Child safety self-closing electrical outlet covers - Child safety gates (permanently fixed only) - Bump guards for tables - Electrical hazard mediation
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Resident Education

<p>Resident education on installed measure optimization.</p>
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Appendix D

Excerpted Investment Plan

NOTE: This document is excerpted from the *Clean Energy Fund Investment Plan: Low- to Moderate-Income Chapter (August 8, 2019 Revision)*. Visit <https://www.nyserda.ny.gov/About/Funding/Clean-Energy-Fund>

Matter Number 16-00681, In the Matter of the Clean Energy Fund
Investment Plan

Clean Energy Fund Investment Plan: Low- to Moderate-Income Chapter

Portfolio: Market Development

Submitted by:

The New York State Energy Research and Development Authority

Revised August 8, 2019

15.2.1 New York State Healthy Homes Value-Based Payment (VBP) Pilot

The New York State Healthy Homes Value-Based Payment Pilot (Pilot) will seek to develop a replicable model for implementing a healthy homes³ approach to residential building improvements under the Medicaid Value-Based Payment (VBP)⁴ framework. By validating impacts such as healthcare cost savings and benefits to residents, as well as providing market development support, including specification of services and VBP contracting, the Pilot will facilitate the adoption of healthy homes treatments by Medicaid managed care organizations (MCO) as part of their Medicaid VBP Arrangements that incorporate social determinants of health. Adopting this approach addresses avoidable medical costs associated with asthma and household injury, while also encouraging third party capital investment in residential energy efficiency through MCO adoption of healthy homes interventions within the value-based payment social determinants of health framework after the completion of the Pilot.

The Pilot will be planned and implemented in partnership with the New York State Department of Health (DOH). 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 supports intended to prepare the existing network of energy efficiency contractors to implement healthy homes interventions as well as provide guidance for the value-based payment social determinants of health contracting process.

³ 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 aimed at household injury prevention (smoke and carbon monoxide alarms, stair repair, electrical outlet covers). When implemented together, these interventions can improve occupant health, reduce energy bills and healthcare costs, and improve the comfort and safety of a home.

⁴ New York State Medicaid is transitioning the managed care healthcare delivery system from a fee-for-service to a VBP model that links healthcare provider performance and reimbursement through a pre-determined set of value metrics. Under the VBP model, managed care organizations (MCO) (i.e., healthcare plans such as Empire Blue Cross Blue Shield) can enter into arrangements with healthcare providers or provider networks

To support local reinvestment, two of three VBP arrangement levels require incorporation of a community-based organization (CBO) engaging in work focused on the social determinants of health (SDH). Among the five social determinants of health categories established within the VBP system, the Neighborhoods and Environment category includes “substandard housing” as a determinant and includes funded interventions and standard metrics associated with healthy homes interventions within the established SDH Intervention Menu. The substandard housing determinant places energy efficiency and weatherization measures, when incorporated within a healthy homes intervention, within the DOH value based payment model.

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

Theory of Change

<p>Market Barriers Addressed</p>	<ul style="list-style-type: none"> • Limited funding stream for low-income energy efficiency services. Validating cost savings of Healthy Homes interventions will provide an evidence base to support Medicaid funding Healthy Homes interventions as a sustainable funding model. • Lack of access to energy efficiency services for low-income households. Managed care organization adoption of Healthy Homes interventions as part of the value based social determinants of health framework would expand energy efficiency services to New York residents who might not otherwise be exposed to the opportunity. • Fragmented delivery of health, housing, energy programs and services across NYS. Pilot activities will access best practices for operationalizing Healthy Homes interventions for improved and more efficient service delivery. • Substandard housing (e.g. poor air quality and other environmental deficits). Healthy Homes interventions provide residential measures that that improve energy efficiency and health outcomes for residents and create a healthier, safer, and more comfortable home environment. • Lack of access to community health resources. Healthy Homes interventions include an in-home education component that provides information about health-related resources in a resident’s local community. • Lack of know-how among managed care organizations (health plans) on options for providing healthy homes improvements under VBP arrangements. Market support activities including standardized contracts and specifications to deliver Health Homes interventions will provide managed care organizations with needed tools to support future independent uptake.
<p>Testable Hypotheses</p>	<ul style="list-style-type: none"> • If the market for healthy homes interventions under the Medicaid VBP framework is supported through the validation of healthcare cost savings, soft- cost reductions, and fostering a network of service providers, MCOs will be more likely to invest in healthy homes treatments as a preventative measure for their Medicaid members.
<p>Activities</p>	<ul style="list-style-type: none"> • NYSERDA and NYS DOH will collaborate to implement healthy homes interventions in 500 Medicaid member homes. NYSERDA will provide the funding for the healthy homes intervention. • NYSERDA will also provide market supports, including: <ul style="list-style-type: none"> ○ Technical support to develop a network of qualified healthy homes service providers by specifying healthy homes interventions ○ Guidance on standardized contract language for healthy homes improvements for use between MCOs, VBP providers, and residential service providers

Target Market Characterization

<p>Target Market Segment(s)</p>	<p>NYSERDA will implement the Pilot in cooperation with the NYS DOH Office of Health Insurance Program, Office of Public Health, and Center for Environmental Health. MCOs and their networks of healthcare providers will be targeted for participation in addition to community-based organizations and energy efficiency contractors that can provide healthy homes interventions.</p>
	<p>Target Market Segments include:</p> <ul style="list-style-type: none"> • Managed care organizations (i.e. health plans) operate within the Medicaid Healthcare Delivery System, contracting with healthcare service providers within the value-based payment framework to provide clinical care and other health-related services to Medicaid members. • Energy efficiency/weatherization provide energy efficiency and health and safety services in residential dwellings within a given region. • Healthcare providers networks (e.g. physicians, hospitals, nurses, community health workers) operate within the Medicaid Healthcare Delivery System to provide healthcare services such as clinical care, in-home education, and referrals to community-based resources that address social determinants of health. <p>Residents/customers (high Medicaid utilizers) will follow their clinical care plans and participate as necessary in the coordination of dwelling interventions.</p>
<p>Stakeholder/Market Engagement</p>	<ul style="list-style-type: none"> • 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 greater than 200 energy efficiency contractors in New York State, including more than 50 weatherization subgrantees, who meet the conditions necessary to provide Medicaid services under VBP Level 2 and 3 Arrangements. • NYSERDA has worked closely with the DOH Office of Health Insurance Programs (inclusive of Medicaid) to identify the Pilot opportunity and position it in the most beneficial way for both NYSERDA and DOH. • In coordination with DOH, NYSERDA has engaged with MCO executive staff that have 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 has engaged with 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.

<p>Relationship to Utility Programs and REV Initiatives</p>	<ul style="list-style-type: none"> • The New York State Healthy Homes Value-Based Payment Pilot does not have a direct relationship to utility programs. However, NYSERDA and the utilities coordinate on the implementation of low-income energy efficiency programs. If the pilot is successful and healthy homes interventions are regularly incorporated as a service under Medicaid, it is possible that some income- eligible utility customers may be provided with energy efficiency services through future healthy homes efforts. • In addition, if the Pilot is successful in encouraging broad adoption of healthy homes treatments under Medicaid managed care, it can serve as a funding stream to address the health and safety issues that are currently not able to be funded through traditional energy efficiency programs. This will expand residential energy efficiency beyond its present reach, aligning this Pilot with New York State Public Service Commission directives aimed at accelerating statewide energy efficiency targets.
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Key Implementation Milestones

<p>Key Milestones</p>	<p><u>Milestone 1 (2019)</u></p> <ul style="list-style-type: none"> • Specification list of healthy homes interventions to address asthma and household injury <p><u>Milestone 2 (2019)</u></p> <ul style="list-style-type: none"> • Release of and RFQ to identify healthy homes energy/housing service providers <p><u>Milestone 3 (2019)</u></p> <ul style="list-style-type: none"> • Onboarding of energy services implementation contractor and health implementation infrastructure <p><u>Milestone 4 (2019)</u></p> <ul style="list-style-type: none"> • Commencement of pilot implementation <p><u>Milestone 5 (2019)</u></p> <ul style="list-style-type: none"> • Secure all submissions of social determinants of health template for VBP Arrangement integration (rolling) <p><u>Milestone 6 (2020)</u></p> <ul style="list-style-type: none"> • Preliminary review of progress to date, including assessment of measure frequency and cost, barriers, and opportunities to inform remainder of pilot <p><u>Milestone 7 (2020)</u></p> <ul style="list-style-type: none"> • Completion of value-based payment contracting toolkits for MCO/VBP Providers and community-based organizations <p><u>Milestone 8 (2021)</u></p> <ul style="list-style-type: none"> • Interim reporting on year one health and housing services process and intervention measures <p><u>Milestone 9 (2022)</u></p> <ul style="list-style-type: none"> • Conclusion of data collection <p><u>Milestone 10 (2023)</u></p> <ul style="list-style-type: none"> • Final evaluation report
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Fuel Neutrality

<p>Fuel Neutrality</p>	<ul style="list-style-type: none"> • Consistent with the CEF, NYSERDA intends to offer the New York State Healthy Homes VBP Pilot in a fuel neutral manner, offering Pilot participation to encourage more efficient use of all fuel types. • Implementing the Pilot on a fuel neutral basis will result in \$946/ton (lifetime, direct only). This is compared to \$4,444/ton if the Pilot addresses only electric efficiency (lifetime, direct only). • The Pilot’s focused attention on installing health and safety measures necessitates consideration of non-electric measures, whereas residential energy efficiency interventions typically have fewer opportunities for electric energy efficiency.
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Performance Monitoring and Evaluation Plans

<p>Performance Monitoring & Evaluation Plan</p>	<p>NYSERDA’s approach to monitoring and assessing the effectiveness of the Pilot is described below.</p> <p><u>Test-Measure-Adjust Strategy</u></p> <p>The performance of the pilot will be monitored using the following indicators.</p> <ul style="list-style-type: none"> • Number of participating managed care organizations • Number of homes receiving Healthy Homes interventions • Number of contractors performing the interventions <p><u>Measurement and Verification (M&V) Strategy</u></p> <p>Measurement and verification will be facilitated by New York State Department of Health and formally reported in cooperation with NYSERDA per the Milestone schedule.</p> <ul style="list-style-type: none"> • Pre- and post-intervention environmental testing, when applicable • Pre- and post-intervention surveys to participants assessing intervention effects including; health benefits, home comfort, and additional benefits related to the social determinants of health • Estimation of health outcomes of interventions using Medicaid claims data • Estimation of cost savings of interventions using Medicaid claims data <p><u>Impact Evaluation</u></p> <p>Impact evaluations will be conducted cooperatively by NYSERDA and the New York State Department of Health to measure effects of the interventions. <i>NYSERDA</i>:</p> <ul style="list-style-type: none"> • Energy savings • Customer utility bill savings <i>Department of Health</i>: • Health outcomes for residents, related to asthma and household injury • Healthcare cost savings measured by avoided medical care, related to asthma and household injury <p><u>Market Evaluation</u></p> <p>Pending cooperation with DOH Office of Health Insurance Programs and/or managed care organizations conducting social determinants of health work under VBP, market evaluation, in the form of a market survey, will be conducted. The market survey will be intended to identify the number of healthy homes treatments occurring under Medicaid Managed Care VBP and to validate the forecasted indirect market effects expected to accrue over the longer term as a result of this investment and follow on market activity. The survey may be administered within one year (-/+) of the years noted in Appendix B and projected future indirect benefits may be updated based on the results of market evaluation.</p>
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15.2.1.1 Budgets & Expenditures

An annual commitment budget for all activities included in this chapter is shown in Appendix B. Budgets do not include Administration, Evaluation, or Cost Recovery Fee; these elements are addressed in the Budget Accounting and Benefits chapter filing. The budget as presented in the Budget Accounting and Benefits Chapter will serve as the basis for any subsequent reallocation request. The additional level of detail presented within Appendix B is intended for informational purposes only.

15.2.1.2 Progress and Performance Metrics

Benefits shown in Appendix B, listed as direct, are direct, near term benefits associated with this initiative's 500 pilot homes.⁵ These benefits will be quantified and reported in Q4 2020 as a year one interim report and in Q4 2023 as a final evaluation report. and will be validated through later evaluation.

Benefits shown in Appendix B, listed as indirect, represent the estimated indirect market effects expected to accrue over the longer term as a result of this investment and follow on market activity. Indirect benefits assume subsequent Medicaid supported projects in 320 homes in 2020, increasing by +60% per year through 2030. The indirect benefits that accrue from this investment will be quantified and reported based on periodic Market Evaluation studies to validate these forecasted values. Market Evaluation may occur within one year (-/+) of the years noted in Appendix B and projected future indirect benefits and/or budgets necessary to achieve them may be updated based on the results of market evaluation. Indirect impact across NYSEDA initiatives may not be additive due to multiple initiatives operating within market sectors. The values presented in Appendix B are not discounted, however NYSEDA has applied a discount of 50% to the overall portfolio values in the Budget Accounting and Benefits chapter.

In addition, NYSEDA will cooperate with DOH to:

- Provide analysis of health benefits for residents resulting from healthy homes interventions targeting asthma and unintentional household injury.
- Provide analysis of healthcare cost savings for NYS Medicaid associated with healthy homes interventions targeting asthma and unintentional household injury.

⁵ The homes in the pilot will be fully funded, therefore Appendix B does not show any leveraged funds. Leveraged funds are anticipated for the Medicaid supported projects captured in the indirect benefits.

Appendix B-12 | Initiative Budget and Benefits Summary

Revised: Q2 2019

NYS Healthy Homes Value-Based Payment Pilot

	Actual <i>Plan</i>	Actual <i>Plan</i>	Actual	<i>Plan</i>	<i>Plan</i>	<i>Plan</i>	<i>Plan</i>	<i>Plan</i>	<i>Plan</i>	<i>Plan</i>	<i>Plan</i>	<i>Plan</i>	<i>Plan</i>	<i>Plan</i>	<i>Plan</i>	<i>Plan</i>
Direct Benefit	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Energy Efficiency MWh Annual				120	120	60										300
Energy Efficiency MWh Lifetime				1,680	1,680	840										4,200
Energy Efficiency MMBtu Annual				4,000	4,000	2,000										10,000
Energy Efficiency MMBtu Lifetime				80,000	80,000	80,000										240,000
Energy Efficiency MW																-
Renewable Energy MWh Annual																-
Renewable Energy MWh Lifetime																-
Renewable Energy MW																-
CO2e Emission Reduction (metric tons) Annual				297	297	148										742
CO2e Emission Reduction (metric tons) Lifetime				5,551	5,551	2,776										13,879
Participant Bill Savings Annual				73,200	73,200	36,600										183,000
Participant Bill Savings Lifetime				1,350,240	1,350,240	675,120										3,375,600
Leveraged Funds																-
Indirect Benefit	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Energy Efficiency MWh Annual					192					4,858					50,950	56,000
Energy Efficiency MMBtu Annual					6,400					161,600					1,702,000	1,870,000

Low-to-Moderate Income

Renewable Energy MWh Annual																	-
Renewable Energy MW Annual																	-
CO2e Emission Reduction (metric tons) Annual					474					12,001					125,836	138,311	
CO2e Emission Reduction (metric tons) Lifetime					8,882					224,683					2,355,947	2,589,512	
Participants	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total	
Participants ^a				200	200	100										500	
Total	-	-	-	200	200	100	-	-	-	-	-	-	-	-	-	500	
Budget	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total	
Direct Incentives and Services				2,400,000	2,500,000	1,200,000										\$ 6,100,000	
Implementation Support				148,000	172,000	50,000										\$ 370,000	
Research and Technology Studies				683,566	888,820	776,641	494,627	100,000								\$ 2,943,654	
Tools, Training and Replication				100,000	150,000	150,000										\$ 400,000	
Business Support																\$ -	
Total	\$ -	\$ -	\$ -	\$ 3,331,566	\$ 3,710,820	\$ 2,176,641	\$ 494,627	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,813,654	

Table notes

a. A participant is defined as a dwelling unit served/treated through the pilot.