

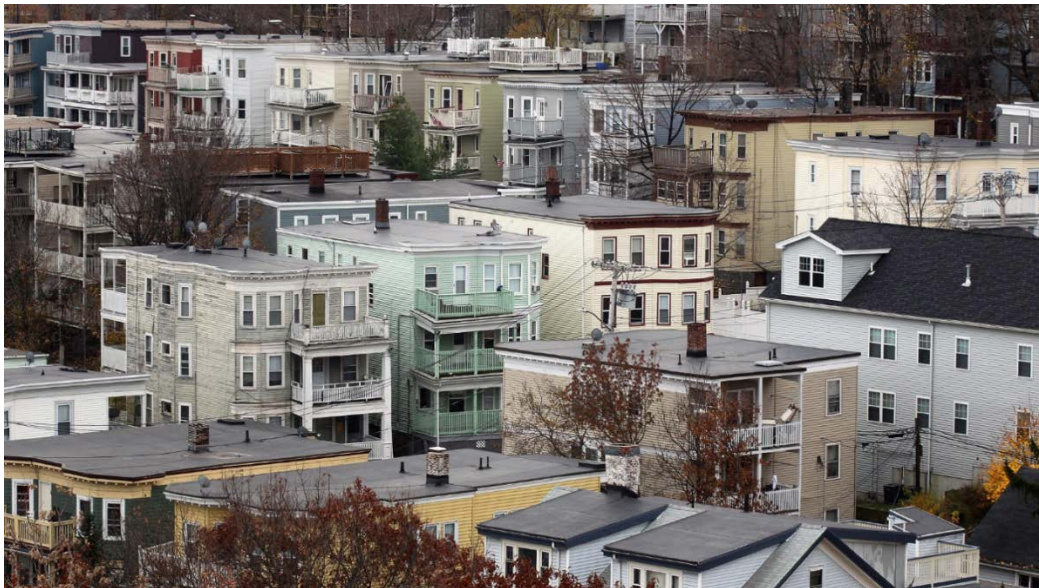


Triple Decker Retrofit Pilot Program: Affordable Housing

Program Manual

Posted: June 20, 2022

Application Deadlines: Applications will be accepted on a rolling basis until all funding is awarded. The first MassCEC application evaluation deadline was March 4, 2022. The second application evaluation deadline was June 4, 2022. The next application evaluation deadline is September 2, 2022. If funding remains, MassCEC will announce future deadlines for application submissions.



Total Funding Available: \$1,350,000

Application form is available online:



<https://form.jotform.com/MassCECForms/tripledecker>

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1 Introduction

1.1 Triple Decker Retrofit Pilot Program: Affordable Housing: Overview

The Triple Decker Retrofit Pilot Program will build upon the lessons learned from the [Triple Decker Design Challenge](#) to demonstrate cost-effective strategies for decarbonizing these small multi-family buildings. The demonstration pilot will offer technical support and financial incentives to implement high-efficiency, all-electric retrofits of triple deckers (the “[Decarbonization Project](#)”). The program aims to establish real-world examples of all-electric building retrofits and surface additional lessons to help inform efforts to rapidly scale all-electric retrofits in the coming years. The Triple Decker Retrofit Pilot will be separated into two tracks: one for market rate and/or privately owned triple decker owners and one for affordable housing triple deckers. This pilot manual describes how to apply for funding for affordable housing triple deckers. MassCEC anticipates releasing a separate opportunity for market rate triple deckers in the Spring of 2022.

1.2 Purpose of Pilot Manual

The purpose of this pilot is to seek applicants for funding to pilot high-efficiency, all-electric affordable housing triple decker retrofits using lessons from MassCEC’s [Triple Decker Design Challenge](#).

This pilot manual seeks owners of affordable housing triple deckers that are committing to decarbonizing their buildings, either as part of a large renovation project or as a standalone effort. MassCEC is also seeking to fund at least three projects that are adding one or more new units on the site of an existing triple decker. Applicants do not need to have fully developed strategies to decarbonize their triple deckers since the pilot will offer technical support to participants.

This pilot manual describes the grant levels, eligibility requirements, application process, and grant disbursement process for awards. Key definitions are listed at the end of this document.

1.3 About MassCEC

The Massachusetts Clean Energy Center (MassCEC) is a state economic development agency dedicated to accelerating the growth of the clean energy sector across the Commonwealth to spur job creation, deliver statewide environmental benefits and to secure long-term economic growth for the people of Massachusetts. MassCEC works to increase the adoption of clean energy while driving down costs and delivering financial, environmental, and economic development benefits to energy users and utility customers across the state.

MassCEC’s mission is to accelerate the clean energy and climate solution innovation that is critical to meeting the Commonwealth’s climate goals, advancing Massachusetts’ position as an international climate leader while growing the state’s clean energy economy. MassCEC is committed to creating a diverse, equitable, and inclusive organization where everyone is welcomed, supported, respected, and valued. We are committed to incorporating principles of diversity, equity, inclusion, and environmental justice in all aspects of our work in order to promote the equitable distribution of the health and economic benefits of clean energy and support a diverse and inclusive clean energy industry. MassCEC strives to lead and innovate in equitable clean energy and climate solutions.



2 Grant Levels and Eligibility Requirements

2.1 Grant Levels and Budget Details

MassCEC has \$1,350,000 available for awards under the Triple Decker Retrofit Pilot: Affordable Housing. Submissions will be competitively evaluated every three months (as described in Section 3.1). As described in Section 4, MassCEC will select applicants based on geographic diversity and diversity of existing fuel type. MassCEC will also prioritize applicants located in Environmental Justice communities, as well as applicants who plan to add an additional unit as a part of the project. MassCEC anticipates making around 10 awards as part of this pilot, with at least 3 awards going to triple deckers adding an additional unit.

Each awarded project will receive technical assistance from MassCEC’s technical consultant for this pilot, New Ecology, Inc. (“NEI”). NEI will conduct a decarbonization assessment for each building in coordination with a 1-4 Family Mass Save® energy assessment. NEI will provide recommendations for Decarbonization Project implementation and assistance navigating and applying for all available incentives, such as the 1-4 family low-income Mass Save® program. NEI can also provide guidance on additional new units that are being added to awarded triple deckers, although building owners are responsible for hiring an architect and managing the municipal approval process. NEI will also conduct post construction testing and work with building owners to evaluate the performance improvements for these projects.

All projects are required to meet the Minimum Project Requirements described in Section 2.3 below and will be awarded the Baseline Incentive as outlined in Table 1 below. Projects that face unusual barriers to decarbonization and/or go beyond the Minimum Project Requirements may be eligible for additional incentives up to the Maximum Incentive outlined in Table 1 below. More details on how additional incentives will be determined are available in Section 2.4 below. Selected awardees will work with NEI to finalize the project scope and incentive level before construction.

Table 1. Incentive Levels		
	Total Per Building Incentive for Triple Decker with No New Unit	Total Per Building Incentive for Triple Decker with New Unit/s
Baseline Incentive for Meeting Minimum Project Requirements (See Section 2.3 for more details)	\$60,000*	\$100,000*
Additional Incentives Available for Projects that Face Unusual Barriers and/or Go Beyond the Minimum Project Requirements (See Section 2.4 for more details)	Up to \$60,000	Up to \$60,000
Maximum Incentive	\$120,000	\$160,000



*In all cases, MassCEC’s incentive will not exceed the Decarbonization Project Costs minus all other incentives.

The Decarbonization Project Costs include the installed costs of any of the components of decarbonization described in Sections 2.3 and 2.4. Additionally, Decarbonization Project Costs include organizational staff time, external consultant costs, and permitting expenses related to planning and implementing the Decarbonization Project, but not related to other aspects of the renovation (e.g., design costs for renovating kitchens). Finally, Decarbonization Project Costs also include costs to mitigate barriers to allow the Decarbonization Project to move forward (e.g., knob and tube remediation to allow insulation). In case of uncertainty around eligible Decarbonization Project Costs, NEI will recommend whether or not the expense should be considered eligible and MassCEC will make the final decision.

If the Decarbonization Project Costs minus other incentives are less than the Baseline Incentive above, MassCEC’s award will be reduced accordingly. For example, if the total project cost was \$80,000 and Mass Save covered \$30,000 worth of the project (either through direct installations or rebates), MassCEC’s award would be reduced to \$50,000.

2.2 Minimum Site Eligibility Requirements

Projects must meet the following criteria in order to be eligible for awards under the Triple Decker Retrofit Pilot: Affordable Housing:

- Applicant must be the owner of a triple decker that meets one of the following criteria to demonstrate that it is affordable housing:
 - An eligibility letter from the Low-Income Energy Affordability Network’s (“LEAN”) Low-Income Multifamily (“LIMF”) Energy Retrofits Program. See <http://leanmultifamily.org/> for more details.
 - A deed restriction that explicitly states the development has reserved the unit for households earning eighty percent (80%) or less of state median income. If it is not explicit, then Applicants will need to provide an alternative form of verification.
 - For housing shelters, a letter from the Executive Director or another individual with signatory authority stating that the property is used as a housing shelter.
 - Other forms of documentation as determined by MassCEC on a case-by-case basis.
- Triple Decker was built before 1970

MassCEC only intends to make one award per owner or community development corporation.

This pilot is **not** intended for the following types of projects:

- Single unit in a triple decker building
- Market rate (i.e., non-affordable housing) triple deckers
- New construction triple deckers or triple deckers built after 1970

2.3 Minimum Project Requirements

All projects must meet the following Minimum Project Requirements:

- Full electrification of all building systems and appliances:
 - Including heating, cooling, ventilation, domestic hot water, and all appliances
 - Air-source heat pumps must meet [NEEP's cold-climate air-source heat pump specification](#) and other heating solutions (e.g., ground-source heat pumps, variable refrigerant flow heat pumps, air-to-water heat pump) should have a similar level high efficiency and cold-climate performance.
 - Project must include decommissioning fossil fuel infrastructure
- Weatherization:
 - Comprehensive plan for air sealing the entire building (including roofs and basements)
 - Insulation:
 - Walls: Minimum of dense pack cellulose, which may mean going back to upgrade walls that have existing, lesser performing insulation (e.g., loose-fill cellulose)
 - Roof/basement: Comprehensive plan for insulation
 - Applicants must be willing to test approaches recommended by NEI that go beyond standard Mass Save weatherization practices, such as new approaches to air sealing and insulating roofs and basements.
- Ventilation:
 - Must meet the ASHRAE 62.2 ventilation standard
 - Must include supply air that incorporates energy or heat recovery ventilation and meet the following criteria:
 - HVI certified
 - Sensible Recovery Efficiency (SRE) @32F > 75% at design air flow
 - ECM Motor required
- Cooperation with data gathering:
 - Building owners are responsible for collecting and providing to NEI energy usage and energy cost data for two (2) to three (3) years prior to the project, including tenant utility data if tenants pay their own utility bills. MassCEC can provide instructions on how to download this data from utility websites if desired.
 - Building owners must work with NEI to connect all units and any common meters to NEI's Wegowise platform for two (2) years of utility use/bill monitoring after construction completion.
 - Building owners must participate in a survey or interview to capture their experience with the decarbonization retrofit.
 - Building owners must provide contact information for tenants (either tenants that are in-place during the retrofit or tenants that move in after completion of the retrofit) so they can be reached for a survey or interview to capture their experience with the decarbonization retrofit.



- Building owners must work with any tenants that are in place to coordinate and manage the impacts of the decarbonization retrofit, including allowing blower door testing pre- and post-construction and potentially after major project milestones.
- Not mandatory, but preferred: MassCEC prefers if building owners are willing to work with tenants to allow an indoor air quality monitor in each unit pre- and post-construction. This is expected to involve having a single air quality monitor somewhere in each unit and potentially one outside of the building.
- All projects must be performed with compliance with all local, state, and federal laws and codes.

2.4 Eligibility for Additional Incentive

As stated in Section 2.1, projects may be eligible for additional incentives beyond the baseline incentive if they face higher costs or unusual barriers to decarbonization and/or go beyond the Minimum Project Requirements. Incentive above the baseline incentive will be recommended by NEI and approved by MassCEC on a project-by-project basis based on barriers and challenges to weatherization and electrification, as well as the performance of efficiency and renewable measures beyond the Minimum Project Requirements being included and implemented. On a case-by-case basis, based on the lesson learned through implementing this pilot, MassCEC may, at its sole discretion, award an incentive greater or less than the values shown in Table 1 above.

Examples of project-specific barriers and challenges to decarbonization could include unusually high costs for upgrading the buildings electrical system to meet the needs of electrification or a moisture issue in the basement that prevents the weatherization of the basement.

Examples of investments that may go beyond the Minimum Project Requirements, include:

- Solar photovoltaics (highly encouraged if feasible)
- Batteries/Energy Storage
- Electric vehicle/ebike charging
- New windows (encouraged if there are existing single pane windows or double pane windows in poor condition)
- Continuous exterior insulation (encouraged if re-siding is planned, MassCEC's incentive would cover the incremental cost of the insulation and installation but not the entire cost of re-siding the building)
- Incremental cost of innovative materials with low embodied carbon
- Incremental cost of innovative technologies, especially domestic hot water solutions

MassCEC is looking for triple decker retrofit approaches that can be replicated and scaled from this pilot, so we are less interested in approaches that achieve deep efficiency reductions at very high upfront costs.



2.5 Project Timeline, Milestones, and Payment Process

For Decarbonization Projects that do not add new units, the target project completion timeline would be 6-12 months within award and contracting with MassCEC, not to exceed 18 months. For Decarbonization Projects that add one or more new units, the target project completion timeline would be 6-18 months within award and contracting with MassCEC, not to exceed 24 months. MassCEC, at its sole discretion, may consider extending these timelines on a case-by-case basis.

MassCEC expects to payout the grant in two or more milestone payments. Payment of a grant installment is contingent upon submission to MassCEC of all the deliverables required in the Grant Agreement for the associated milestone. The deliverables and invoice are subject to MassCEC review and approval. Electronic submissions are required.

Table 2 below provides a standard schedule of milestones and grant installments, to be used as a guideline. Applicants may request a different schedule that better fits the development and financing of their project (for example, if there is not a single permitting milestone or if it would be helpful to have multiple construction phase milestones). MassCEC reserves the right to include a different schedule in any Grant Agreement. Note: To mitigate development risk, MassCEC would be willing to tie a milestone payment to permit application instead of successful permitting, especially for projects that will be adding a new unit. In these cases, MassCEC would still payout that milestone payment even if the permitting process for the new unit is ultimately unsuccessful, as long as the building owner was willing to share their experience and lessons learned from the attempted permitting process.

Table 2. Sample Milestone Payment Schedule	
Milestone	Milestone Payment
Milestone #1: Contract Signing	15% of Award
Milestone #2: Completion of permitting or other appropriate milestone	35% of Award
Milestone #3: Project Completion	50% of Award

3 How to Apply

3.1 Application and Submission Instructions

Applications should be completed online at <https://form.jotform.com/MassCECForms/tripledecker>.

Please include in your application:

- Completed **Application Form:** <https://form.jotform.com/MassCECForms/tripledecker>
 - This online application form includes Applicant and project information. It can be saved so that the application can be completed over multiple sessions.
 - A PDF version of the application is available for reference on the [pilot webpage](#).



- If desired, applicants may submit a scanned version of the completed PDF via email to buildings@masscec.com instead of completing the online form, although MassCEC prefers the completed online form.
- Submitted as attachments to the online application form or emailed to buildings@masscec.com:
 - Signed **Attachment A: Authorized Applicant’s Signature and Acceptance Form**
 - **Affordable Housing Verification** using one of the following methods described in Section 2.2
 - Most recent **Capital Needs Assessment** (or if not available, photographs of the exterior and interior of the building including mechanical space/basement)
 - Optional (if available): Energy auditing and evaluation reports
 - Optional (if available): Project narrative, renderings, or drawings available at this time

3.2 Application Timeframe and Evaluation Process

Applications will be accepted on a rolling basis and will be reviewed each quarter. The first review occurred for applications received by March 4, 2022. The second review occurred for applications received by June 4, 2022. The third review will occur for applications received by September 2, 2022. If all the funding is not awarded after the third review period, MassCEC will announce the deadline for the fourth review period, expected to be in December 2022.

As a competitive rolling application, MassCEC may 1) award a project after initial review, 2) reject an application outright, or 3) defer a final decision until a later date after further submissions have been received. MassCEC staff may request supplemental information prior to formal review. MassCEC may also request an interview with Applicants.

3.3 Applicants’ Questions and Answers

MassCEC hosted an informational webinar on this pilot program on February 9th at 2 pm. A recording of the webinar is available [here](#).

Additionally, questions concerning this pilot can be submitted in writing by email to buildings@masscec.com. All inquiries should reference the “Triple Decker Retrofit Pilot.”

MassCEC has posted questions and answers from the webinar and from email in the “FAQ” section of the Triple Decker Retrofit Pilot webpage (<https://www.masscec.com/triple-decker-retrofit-pilot>). MassCEC will periodically update this list. Applicants are encouraged to visit the website for updates prior to submitting a question. Only answers posted on the website should be treated as MassCEC’s official response to any question.

4 Selection Criteria

Applications will be evaluated using the criteria in the table below.

Table 3. Selection Criteria	
Criteria	Sub-Criteria



Minimum Criteria	<p>MassCEC reserves the right to only consider applications that, in its sole judgement, meet the minimum threshold criteria, including:</p> <ul style="list-style-type: none"> • The application is complete and responsive to the Pilot Manual and Application requirements. • The application includes all required attachments. • The clarity, specificity, and consistency of the application are sufficient to be deemed credible. • The proposed project meets all requirements stated in Sections 2.2: Minimum Site Eligibility Requirements.
Diversity of Applicants	<p>MassCEC is looking to award a diverse group of triple deckers, including:</p> <ul style="list-style-type: none"> • Geographical diversity • MassCEC is seeking a minimum of three participating triple deckers that plan to add a new unit. • Existing fuel type (e.g., oil, natural gas) • Existing distribution type (e.g., radiators, ductwork) • High proportion of awards to properties located in Environmental Justice census blocks <p>Diverse applicants/organizations are encouraged to apply.</p>
Sufficient Additional Funding	<p>Committed funding from sources such as Municipal Funds, CDBC/HOME, Affordable Housing Trust, Replacement Reserves, Grants, etc. to complete upgrades or additions above MassCEC and Mass Save contribution.</p>
Project Team & Schedule	<p>Project team or partners has experience and qualifications to oversee the triple decker retrofit and, if applicable, construction of a new unit within the target timelines described in Section 2.5.</p>
Proposed Approach	<p>Additional consideration will be given to applicants with well thought out proposal approaches to weatherization and electrification that include cost-effective strategies with a high potential for replicability and/or test innovative approaches to adding a new unit, low embodied carbon materials, new technology solutions, etc.</p> <p>Note: As part of the pilot, New Ecology will provide an assessment of selected triple deckers and guidance on strategies to make the building more efficient and decarbonize, so applicants should apply even if they are not sure of all of the details of the proposed approach as long as they are comfortable with the Minimum Project Requirements in Section 2.3.</p>

5 General Conditions

5.1 Notice of Public Disclosure

As a public entity, MassCEC is subject to Massachusetts' Public Records Law, codified at Chapter 66 of the Massachusetts General Laws. Thus, any documentary material, data, or other information received



by MassCEC from an applicant is public record subject to disclosure. Applicants shall not send MassCEC any confidential or sensitive information in response to this solicitation.

5.2 C-THRU

System Owner agrees and acknowledges that MassCEC shall have the right to disclose the name of any grant recipient and/or Payee, the amount of the payment under the Pilot and any other information it may deem reasonably necessary on C-THRU, the Commonwealth of Massachusetts' online database of state spending, or other applicable state spending website.

5.3 Disclaimer & Waiver Authority

This solicitation does not commit MassCEC to award any funds, pay any costs incurred in preparing an application, or procure or contract for services or supplies. MassCEC reserves the right to accept or reject any or all applications received, waive minor irregularities in submittal requirements, modify the anticipated timeline, request modification of the application, negotiate with all qualified Applicants, cancel or modify the solicitation in part or in its entirety, or change the application guidelines, when it is in its best interests.

This solicitation has been distributed electronically using MassCEC's website. It is the responsibility of Applicants to check the website for any addenda or modifications to a solicitation to which they intend to respond. MassCEC accepts no liability and will provide no accommodation to Applicants who submit an application based on an out-of-date solicitation document.

5.4 Contract Requirements

Upon MassCEC's authorization to proceed with the proposal, MassCEC and the awarded applicant(s) will execute a contract which will set forth the respective roles and responsibilities of the parties.

5.5 Changes/Amendments to the Pilot Manual

The requirements listed herein are subject to change without notice to potential Applicant Parties. This Pilot Manual has been distributed electronically using MassCEC's website. It is the responsibility of Applicant Parties to check MassCEC's website for any addenda or modifications to the Pilot Manual to which they intend to respond. MassCEC, the Commonwealth of Massachusetts, and its subdivisions accept no liability and will provide no accommodation to an Applicant who submits an Application based on an out-of-date Pilot Manual and/or related document.