## **BEST PRACTICES CASE STUDIES**

Driving Energy Efficiency and Renewable Energy Funds into Low-to-Moderate Income (LMI) Communities in California

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# **Report Organization**

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# **Executive Summary**

The State of California is making an incredible effort to meet the challenges of climate change, including setting aggressive climate goals. If leaders are serious about meeting these goals, every resident, business, and government agency must make substantial investments in infrastructure and the built environment; the affordable housing community is no exception.

Housing affordability levels in California are extremely low, necessitating a greater supply for affordable housing. The push to meet climate goals puts an already strained affordable housing community under even more pressure. Despite this, the community is innovative and have led the way in many green building and renewable energy efforts over the last three decades. Many affordable housing developers acknowledge the need to meet the State's climate goal and strive to do so without sacrificing affordability. However, our analysis shows that more financial support is required for California to accomplish its dual goals of housing affordability and climate mitigation. Affordable housing and energy advocates must stand together in their efforts to organize more resources to build more affordable, higher-performance housing.

This report provides examples and recommendations for public agencies and green banks to structure programs better to drive more funding of energy efficiency and renewables into low-to-moderate income (LMI) communities. More specifically, the document illustrates the program design components to make a program successful, while still ensuring taxpayer dollars are utilized

efficiently and effectively. The effort is timely because of the new infusion of funds that will be coming into California from the Federal <u>Inflation Reduction</u> <u>Act of 2022</u> (IRA), presenting the opportunity for a comprehensive strategy for pursuing such funds by revisiting program design and implementation of energy programs for LMI communities.

# Program and Agency Keys to Success in LMI Communities through Housing

Public agencies, including those that deliver housing and energy funds to LMI communities, have a primary directive to design and administer programs that protect public safety and deliver social goods while ensuring that taxpayer dollars are used as responsibly and efficiently as possible to avoid abuse. This report identifies 8 Keys to Success, specific program designs and structures in LMI programs that strike the balance between efficiently delivering a social good and mitigating abuse. The case studies that follow are examples of energy and housing programs and agencies that best implement these Keys.

### **Program and Agency Key to Success:**

- 1. Carve Out Funds for LMI Programs
- 2. Create Deep Partnerships between Energy and Housing Agencies to Lead Programs
- 3. Streamline Energy Funds with Affordable Housing Funds
- 4. Energy Funds as a Construction Source
- 5. Allocate More Funds to Soft Costs
- 6. Ensure Funding Awards are Flexible, Easy to Use, and Large Enough to Change Behavior for Affordable Multifamily Properties
- 7. Authorize Programs for the Long-term
- 8. Streamline Application Processes and Compliance

# **Program and Agency Case Studies**

The majority of energy funding programs earmarked for LMI communities have and will continue to come from state and local energy and housing agencies. The five Program and Agency case studies highlighted in this report focus on both specific funding programs and administering agencies that specialize in the design and implementation of energy programs. The design and implementation strategies for each case study contribute to effective deployment and equitable distribution of energy and housing-related resources to LMI communities and these five examples are held up as models for best practices that could be applied in California to meet its own decarbonization and housing goals.

## Program Case Study #1:

## Clean Energy Initiative (CEI) Program - New York State Homes and Community Renewal (HCR)

The **Clean Energy Initiative (CEI)** is an excellent example of an energy program administrator, NYSERDA, partnering with a housing agency, New York State Homes and Community Renewal (HCR), to collaborate on program design that mixes energy and housing project funds through existing loan and financing structures. The CEI program uses the business-as-usual affordable housing platform to disseminate capital more seamlessly to meet climate goals and create a market through a built-in pipeline and built-in funding mechanisms. This program provides energy incentives that integrate with existing affordable housing financing. The funds are sized to fully cover incremental costs to meet decarbonization upgrades on the term sheet.

## Program Case Study #2:

## Multifamily Energy Efficiency and Housing Affordability Program (MEEHA) Maryland Department of Housing and Community Development

The Multifamily Energy Efficiency and Housing Affordability Program

(MEEHA) was designed and implemented by the Maryland Department of Housing and Community Development (DHCD) to target new and previously developed affordable housing projects through funding opportunities for energy efficiency measures. The MEEHA program uses utility ratepayer dollars and is flexible in the way funds are implemented, using both subordinate loans or grants at the discretion of the recipient.





#### BEST PRACTICES CASE STUDIES

### Program Case Study #3:

## Solar Massachusetts Renewable Target (SMART) Program

The **Solar Massachusetts Renewable Target program (SMART)** designates incentive payments from utility providers to the owners of solar systems in the state, including solar on multifamily. This tariff-based system is common in many European countries and has been successful in providing unique LMI adder incentives to push bold solar goals within those communities. Feed-in tariffs require utilities to pay specific rates, which can be higher or lower than the "retail rate" of electricity, directly to solar system owners for the power that they provide to the utility grid. This differs from net metering, which pays solar producers a rate equal to the "retail rate" of electricity. The incentive rate is determined by the state agency when a solar generation unit is approved for operation and participation in the program.

## Agency Case Study #1:

# New York State Energy Research and Development Authority (NYSERDA)

The <u>New York State Energy Research and Development Authority</u> (<u>NYSERDA</u>) is New York's official energy agency tasked with advancing renewable energy and efficiency programs throughout the state. NYSERDA has been very successful in its work in LMI communities through programs such as Clean Energy Initiative (CEI), Clean Energy Fund (CEF), Clean Energy Standard (CES), and Regional Greenhouse Gas Initiative (RGGI) among other incentives and projects. These programs take a more comprehensive approach to decarbonization than typical direct install utility incentives.

## Agency Case Study #2:

## California Air Resources Board (CARB)

The **California Air Resources Board (CARB)**, a part of the California Environmental Protection Agency (CalEPA), develops and oversees programs that decrease air pollution and fight climate change, including management of California's Cap-and-Trade program which provides funding for the Affordable Housing and Sustainable Communities (AHSC) program, among others. Programs funded through Cap-and-Trade are multisectoral and involve deep collaboration between multiple agencies.







# **Program Design Keys to Success for Green Banks**

According to the **Coalition for Green Capital**, as of 2023, there are 23 green banks in 17 states and the District of Columbia with \$9 billion in investments. Green Banks play a critical role in delivering energy funding into LMI communities: according to the Coalition, more than a quarter of the **\$4.64 billion invested by the American Green Bank Consortium in 2022** were in low-income and disadvantaged communities. As such, the team developed these keys to specifically call out a set of detailed best practices and lessons learned from Green Banks and other speciality "green" lending institutions across the country.

#### **Green Bank Keys to Success**

- 1. Create a Separate LMI Fund
- 2. Offer Genuinely Below-Market Products
- 3. Focus on Major Capital Events
- 4. Credit Enhance First-Position Mortgage Products
- 5. Train Underwriters on Energy Savings
- 6. Subcontract Program Administration to Established LMI Experts
- 7. Lower Internal Green Bank Soft Costs
- 8. Create Unique Investment Criteria and Performance Metrics for LMI Products

## **Green Bank Case Studies**

This report highlights two Green Bank case studies.

#### Green Bank Case Study #1:

### **Connecticut Green Bank**

The **Connecticut Green Bank** has a dedicated Multifamily Housing Program that targets improving energy efficiency standards within LMI multifamily communities. The Green Bank at large has been instrumental in lowering the cost of clean energy by leveraging funding opportunities that allow projects and incentives to be utilized more effectively for the average consumer, whether that be residential or commercial.



## Green Bank Case Study #2:

## New York City Energy Efficiency Corporation (NYCEEC)

The **New York City Energy Efficiency Corporation (NYCEEC)** is a non- profit agency with a green bank-like structure, offering financing opportunities for energy efficiency and clean energy initiatives specifically within NYC's LMI communities. NYCEEC has been successful in providing a wide range of options when it comes to financing solutions to all players within affordable housing, from property managers to contractors and developers.





# Background

Wells Fargo Climate Impact Philanthropy provided financial support to HP Sustainability, Housing Sustainability Advisors, and LeSar Development Consulting ("The Team") to map the funding landscape of both public and private sources for driving energy efficiency and renewable energy upgrades into LMI communities. Through this project, the team aims to:

- 1. Capture a full view of the current landscape of programs, funding sources, and stakeholders implementing energy efficiency, renewable energy, and resilience, and their engagement with affordable housing and disadvantaged communities
- 2. Evaluate the pros and cons of the current offerings
- 3. Identify gaps in the program landscape
- 4. Introduce case studies of successful green housing finance solutions nationwide
- 5. Convene a set of experts and stakeholders to gather recommendations to address California-specific challenges
- 6. Ultimately, determine the type of sustainable finance entity California needs that will meet its climate reduction goals through affordable housing development.

This report is focused on **Item #4, Introduce case studies of successful green housing finance solutions nationwide**. The report highlights best practices and lessons learned under eight "Keys to Success", outlining elements of programs and organizations that successfully drive green funding into LMI communities. Included are case studies of innovative programs, partnerships and funding sources used across the country to implement energy efficiency and renewable energy in multifamily affordable housing developments. The case studies that follow highlight successful ways energy efficiency funds have been infused into housing funding streams to accelerate energy efficiency activities in affordable multifamily development.

## **Case Study Structure**

The case studies in this report focus on existing and new construction deed-restricted multifamily rental properties that provide long-term affordability through below-market rents, including programs financed with Low-income Housing Tax Credits and U.S. Housing and Urban Development Section 8 Rental Assistance programs. Many of these programs can also serve unsubsidized affordable housing, but to a lesser extent. The case studies identified in this paper are drawn nationally from organizations that have created successful programs to distribute energy efficiency and renewable energy funding into LMI communities.

The goal is to help readers understand the right type of structure, network, offerings, and processes needed to unlock capital within the affordable housing sector without recreating exclusionary financial practices in low-income communities. The report does this by examining seven total case studies: three focus on specific green energy funding programs, two focus on public agencies, and two on well-established Green Banks.

All the case studies apply specific "keys to success" as part of their organizing structure. **Each case study includes the following information:** 

- Keys to Success the case studies start by calling attention to the specific keys to success (see "Program and Agency Keys to Success" section) that are demonstrated in each case study.
- Program Overview an explanation of who runs the program and how it works.
- Program Snapshot key facts about the program highlighted
- Demonstrating Keys to Success detailed explanation of how the keys to success are implemented inside the program
- Program Strengths and Market Transformation explanation of how the program is innovative and changing the market

# Program Design Considerations for Affordable Housing

Multifamily affordable housing is financed and operated much differently than commercial and market rate residential real estate. Affordable housing development relies on securing public subsidies, in addition to having a mission-driven orientation. These characteristics limit the ability to utilize market rate debt and other return-driven forms of capital.

The following elements should be taken into account when attempting to design climate and energy programs for the affordable housing sector:

- Rent Restrictions. Rental income in deed-restricted affordable housing is capped based on the tenants' incomes as determined by Area Median Income (AMI). The deeper the affordability restrictions, the lower amount of conventional debt a property can afford to carry.
- Split incentives. Split incentives occur when those responsible for paying energy bills (the tenant) are not the same entity as those making the capital investment decisions (the building owner). The problem with the Split Incentive issue is that when owners make investments into in-unit energy efficiency, they are not able to realize the savings from those measures because the utility bills are paid by residents. The workaround for this issue to increase rents as a way of indirectly recouping utility savings. Raising rents is possible in market-rate projects, but in affordable housing there is the possibility to adjust resident utility allowances, but it is such an administrative burden that most property owners are simply deterred all together from pursuing in-unit energy efficiency measures.
- Higher Soft Costs. Affordable housing is most often financed using a Federal Low-income Housing Tax Credit (LIHTC) structure and/or U.S. Housing And Urban Development Section 8 Rental Assistance. LIHTC transactions require several more sources of financing than traditional commercial real estate, adding soft costs and regulatory complications when attempting to layer energy financing into a deal. Such complexity typically stretches sponsors' capacities, increasing the difficulty of layering green financing into the deal and adding to soft costs.
- Mission Focus. Affordable housing developers typically are mission-focused, with an interest in funding amenities that would benefit their residents. Despite this, the split incentive limits projects' ability to recoup energy investments via utility bills.

# Definitions

#### Low-to-Moderate Income Residents and Communities

Low-to-Moderate Income (LMI) Communities are those comprising residents who earn 80% of the area median income (AMI) or below. This definition is commonly used in both housing and energy program circles to target eligibility for federal- and state-funded programs. LMI Residents are defined by the U.S. Department of the Treasury as a census tract with a poverty rate of at least 20 percent or a household income of up to 80 percent of the area median income (AMI). Incomes and rents are adjusted every year based upon inflation.

#### **Deed-Restricted Affordable Housing**

The report focuses primarily on existing and new construction deed-restricted multifamily rental properties that provide long-term affordability through regulated, below-market rents, including programs financed with **Low-income Housing Tax Credits (LIHTC)** and public subsidies.

#### **Currently Unsubsidized Affordable Housing**

The report also, to a lesser extent, discusses currently unsubsidized affordable housing, sometimes also known as **Naturally Occurring Affordable Housing (NOAH)**. Rents in NOAH properties are relatively low compared to market rate rents for the applicable region. NOAH properties are typically Class B and C rental buildings or complexes, often constructed between 1940 and 1990. In-place rents are at levels technically affordable to LMI households but are not subject to enforceable affordability covenants.

#### **Green Banks**

Public, quasi-public or non-profit entities established specifically to facilitate private investment into domestic low-carbon, climate-resilient infrastructure. Green Banks facilitate private investment into domestic low-carbon, climate-resilient infrastructure. Over a dozen national and sub-national governments have created public Green Banks in recent years.

# **The Project Team**

**LeSar Development Consultants (LDC)** is a strategy and innovation firm that addresses complex public policy and planning issues with a focus on housing markets, production, affordability, and regional and placed-based planning.

**Housing Sustainability Advisors (HSA)** is a consulting firm that supports affordable housing developers to find new sources of financing to fill gaps, meet sustainability and building code requirements, and realize real returns on investments from energy projects. HSA also supports local, state, and federal government agencies in designing programs that integrate energy resources with the complex structures of affordable housing finance.

**HP Sustainability Solutions** is an expansion of the New York Housing Partnership's traditional role facilitating the creation of affordable housing in New York. HP Sustainability Solutions provides guidance to developers and owners of affordable properties, and to government agencies, to create and implement strategies and initiatives for clean energy adoption and building performance while reducing carbon emissions.

Our team consists of experts with over 40 years of combined experience in housing, energy, finance and program design for low-income communities and is thus uniquely positioned at the intersection of energy and affordable housing.

# California-Specific Opportunities and Challenges

Extensive research and expert interviews surfaced the following opportunities and challenges with energy programs targeting multifamily affordable housing in California.

# **California-Specific Opportunities**

**AB 1279** (Muratsuchi, 2022) codifies California's commitment to cut carbon emission by 85% from 2023 levels and achieve state-wide carbon neutrality no later than 2045. The following key opportunities position the State well to achieve its goals.

## Opportunity #1: California's Building Code is More Aggressive Than Most

**<u>Title 24</u>**, the section of California Building Code that regulates building energy efficiency standards in both new construction and existing buildings, is generally sufficient for developers to meet common green building certification program standards, such as LEED, Greenpoint and Enterprise Green Communities, in new construction projects. The specific standard developers use to certify projects varies based on different factors, including cost of certification, building typology, geographic region, climate, but generally the financing structure of a new construction project using low income housing tax credits (LIHTC) is sufficient to reach green building certification standards. Meeting or exceeding Title 24 requirements in existing affordable properties, especially those reaching the end of their useful life cycles, is much more difficult to achieve in California given the scarcity and structure of preservation financing sources. Reimagining how preservation activity is resourced, and how green building and decarbonization programs can be layered into preservation financing structures, will be key to achieving the state's housing sustainability goals.

## Opportunity #2: California's Climate Goals Are More Aggressive Than Most

California is well-known for its aggressive and comprehensive climate legislation that far outpaces other states. California is the only state with a comprehensive carbon neutrality plan, with a goal of reaching total net zero carbon emissions by 2045, one of the most ambitious pieces of climate legislation in the world. A series of landmark policies implemented in the past two decades has seen California become a leader in limiting greenhouse gas emissions and transitioning to more sustainable means of energy production. With the California State Legislature setting even more stringent interim goals of 90% zero-carbon electricity sales, the state offers an incredible opportunity to implement a variety of energy efficiency programs to help reach its lofty goals.

#### Opportunity #3: California's LMI Administrative Infrastructure is Robust

The state boasts a multitude of organizations committed to the twin objectives of fostering energy efficiency and facilitating affordable housing. Notable among these are the State Energy Office, the California Energy Commission (CEC); the State Greenhouse Reduction Fund, overseen by the California Air Resources Board (CARB), which assumes the responsibility of formulating comprehensive guidelines for the equitable allocation of resources within the Cap & Trade program, including for affordable housing; and the Strategic Growth Council (SGC), which recently released its **Housing**, **Climate and Equity draft workplan** to coordinate approaches throughout the State. Regional Energy Networks (RENs) augment these efforts by actively contributing to the realization of California's energy goals in a localized and region-specific manner. It is important for California to continue fostering a collaborative ecosystem where organizations work synergistically towards the common goal of decarbonizing affordable housing.

## Opportunity #4: Federal Inflation Reduction Act (IRA)

The **Inflation Reduction Act** presents a prime opportunity to mitigate climate change, expand the climate change economy, and prioritize LMI communities, so long as programs and funding is implemented and distributed with care.

The IRA provides \$369 billion for investments in climate resilience, energy security programs and efficiency improvements, with many funding programs boosting incentives for LMI communities. Programs include rebates and tax credits to install energy-efficient air conditioners and heat pumps in lower-income households, tax credits for homebuilders constructing high-efficiency multifamily housing, and grants to help states and localities adopt and implement new building codes that encourage energy-efficient design. The \$27B Greenhouse Gas Reduction Fund (GHGRF) will leverage public investment with private capital and finance clean energy projects that reduce pollution and energy costs, increase energy security, and create good-paying jobs, especially in low-income and disadvantaged communities.

These funding sources also provide a unique opportunity to advance the creation and preservation of equitable and sustainable affordable housing and is a pivotal time for states to develop strategies and coordination to optimally distribute both new and existing climate and energy funds.

Given the constrained economics of affordable deals, capital from the GHGRF and other IRA programs can be added in a number of ways to regulated affordable housing deals, including:

- Predevelopment loans
- Capital Grants requiring no repayment
- GHGRF capital blended with 1st mortgage to reduce the interest rate and increase the amount of debt available to the project. This sources gets repaid over time and can be recycled to future deals

## **California-Specific Challenges**

Despite strong opportunities, California faces a number of challenges in the decarbonization of affordable housing to meet its climate goals.

## Challenge #1:

## Green energy investment in affordable housing will not generate the same returns on investment as traditional commercial real estate

Investors, program administrators and funders operating within the green energy financing space are frequently drawn to projects that can achieve the highest cost-benefit and returns on investment (ROI). However, affordable multifamily housing projects have regulatory restrictions on rental income and complex financing structures which do not allow for the large ROI typically found in other commercial real estate development. Thus, without dedicated funding with specialized terms, LMI projects cannot compete with traditional commercial real estate for such funding.

## Challenge #2: Disconnect between Energy and Affordable Housing Programs

Given the complexity of both energy programs and affordable housing development in California, successful implementation of green energy programs within the affordable housing sector requires a comprehensively sourced team of experts who are able to understand both sectors and the implications of specific program elements. While coordinated strategy meetings between climate, energy, and affordable housing stakeholders are occurring, deeper communication and understanding of on-the-ground realities are required to ensure policies and programs are truly effective.

## Challenge #3:

## Typical financing structures for affordable housing projects limit, and sometimes prohibit, successful implementation of existing green energy programs

Energy funds are often incentivized by performance and structured as rebates, conventional debt, or small grants, making it difficult for affordable housing developers to incorporate into their financing structures. Affordable housing developers typically have limited upfront capital which poses financial risks when implementing incentive-based rebates. Additionally, projects with deep affordability restrictions cannot carry a large amount of conventional debt and often require significant public capital subsidy investments (or "soft debt") and/or forgivable grants to ensure financial feasibility. Affordable housing developers also experience capacity constraints due to lengthy application processes, stringent reporting and compliance requirements, and other administrative burdens, which act as a disincentive towards pursuing small grants.

## Challenge #4: Short-term Energy Program Solutions are not as Effective

Short or limited-term energy programs, with changing application and eligible requirements, require applicants to re-learn regulations, affecting program uptake. As such, programs are not given the chance to scale and reach the maximum number of LMI communities. Long-term implementation brings program familiarity, increases adoption, and lowers cost while becoming more effective over time.

# **Challenge #5:** Existing affordable housing stock often faces other critical preservation needs unrelated to decarbonization

Affordable housing stock reaching the end of its useful life often requires

major capital improvements to the building envelope and existing systems, prior to any considerations around electrification and decarbonization retrofits. However, funding sources for recapitalization and rehabilitation are often limited and/or difficult to access: currently in California, state bond cap restrictions severely limit preservation funding. In addition, affordable housing developers have expressed an inability to successfully rehabilitate older properties to the standards needed to achieve full building electrification. Thus, to effectively achieve full decarbonization in aging affordable properties, energy programs must holistically address the physical needs of the building.



# Program and Agency Keys to Success in LMI Communities through Housing

Public agencies, including those that deliver housing and energy funds to LMI communities, have a primary directive to design and administer programs that protect public safety and deliver social goods while ensuring that taxpayer dollars are used as responsibly and efficiently as possible to avoid abuse. This report identifies 8 Keys to Success, specific program designs and structures in LMI programs that strike the balance between efficiently delivering a social good and mitigating abuse. The report additionally identifies seven separate Keys to Success specific to Green Banks to successfully drive funding into LMI communities (see "Program Design Keys to Success for Green Banks" section).

## **Program and Agency Keys to Success**

- 1. Carve Out Funds for LMI Programs
- 2. Create Deep Partnerships between Energy and Housing Agencies to Lead Programs
- 3. Streamline Energy Funds with Affordable Housing Funds
- 4. Energy Funds as a Construction Source
- 5. Allocate More Funds to Soft Costs
- 6. Ensure Funding Awards are Flexible, Easy to Use, and Large Enough to Change Behavior for Affordable Multifamily Properties
- 7. Authorize Programs for the Long-term
- 8. Streamline Application Processes and Compliance

## **Carve Out Funds For LMI Programs**

The primary goal of energy programs is to achieve the greatest energy savings for the lowest cost. As such, program administrators are drawn to funding large real estate assets with individual tenants. However, the scale of the climate crisis necessitates the decarbonization of affordable housing buildings in LMI communities as well. Such projects are financed and operated differently from market-rate projects and are typically smaller, with disaggregated energy usage. A program developed primarily to decarbonize market-rate housing will not be as effective for affordable housing. Administrators that have carved out separate programs targeted at LMI projects with more favorable terms have typically seen greater success.

## Create Deep Partnerships between Energy and Housing Agencies to Lead Programs

It is incredibly challenging to find energy program staff that are truly expert in both building science and affordable housing development (i.e. the financing, construction and operation of multifamily affordable housing). However, to effectively develop programs that incorporate greater sustainability into multifamily affordable housing, knowledge of both is required – program designers need to understand both the most impactful ways to incorporate sustainability into buildings without increasing the administrative and financial burden on developers. The most successful programs involve deep engagement between energy and housing staff throughout the program design process.

## **Streamline Energy Funds with Affordable Housing Funds**

Most affordable housing developers interviewed preferred to receive energy funds as part of loan structures rather than grants. The vast majority of affordable housing projects in California, New York, and other high-cost markets must receive soft loans from state housing agencies to be financially viable. In the case where developers are already receiving soft loans from states, developers prefer to receive energy funds as an increase to their soft loans rather than cash grants due to administrative and tax advantages.

## **Energy Funds as a Construction Financing Source**

Energy funds make much more impact and receive better uptake in low-income communities for new affordable housing projects when they are large enough and structured so that they can be used as a formal construction source of financing in their capital stacks. Both the timing and terms under which energy funding programs are provided can affect successful implementation. Energy funds that are programmed as performance-based rebates are difficult to implement when there is no upfront capital source to pay for equipment installation. Point-of-sale rebate structures alleviate that initial financial burden, freeing up development capital to be used for other critical costs. Other financing structures, such as low-cost debt and/or "soft debt" introduced during the pre-development or construction phases of projects are much more compatible with typical affordable housing financing structures and developer capacities. Early inclusion into funding term sheets and formal commitments enables lenders and investors to formally recognize energy funds as a construction financing source, which makes them much more impactful and valuable to affordable housing developers.

## **Allocate More Funds to Soft Costs**

The disaggregated nature of energy savings in affordable housing projects in addition to burdensome rebate requirements require substantially more time and effort to access funding. In order to meaningfully expand into this market, programs must account for the increased soft costs and capacity required for an owner to access 1,000 kilowatt hours of savings in a warehouse building with one tenant versus 1,000 kilowatt hours of savings in an affordable multifamily project made up of 100 individual apartments, each with their own energy bills, multiple investors, and an owner often with limited time and capacity.

## Ensure Funding Awards are Flexible, Easy to Use, and Large Enough to Change Behavior for Affordable Multifamily Properties

To make dollars stretch further across the most amount of customers, energy program administrators often establish maximum funding awards per project that do not fully cover costs. For example, utility rebate programs are one of the most frequently used sources of energy funding, but they typically cover 5-10% of equipment cost and less than 1% of total project cost. Multifamily affordable housing developers weigh their capacity and project management costs against the size of the energy award. If the awards are not large enough or too administratively cumbersome, they will forgo such funding. Conversely, applications that align with existing funding programs ease the capacity and administrative burden. The most successful programs offer grants for over 80% of equipment cost and meaningful technical assistance to encourage significant design updates that achieve higher efficiency.

## Authorize Programs for the Long-term

Unfortunately, many well-designed programs are only authorized for a short period of time and are oversubscribed almost immediately. The most successful states consolidate energy funds into a select set of programs to gain scale and then authorize those programs for over 5 years. Long-term authorization gives applicants time to learn the programs and certainty of the funding availability, which allows for planning and brings down their cost to apply and comply. These quality features also give program administrators the justification to ask more of applicants.

## **Streamline Application Processes and Compliance**

In an effort to ensure responsible use of public dollars, program administrators often burden affordable housing projects with intensive applications and ongoing compliance, which increases project cost and diverts funds away from amenities for LMI residents. The most mission-oriented energy administrators work with housing agencies to piggyback off existing funding application processes and streamline compliance processes, reducing the administrative burden of their programs and enabling better utilization of funds and services for low-income residents.

## **PROGRAM CASE STUDY #1**

# Clean Energy Initiative (CEI) Program – New York State Homes and Community Renewal



An example of a program designed and implemented in partnership with a state energy office and housing agency to serve LMI Communities.

## **Keys to Success**

- 1. Create Deep Partnerships between Energy and Housing Agencies to Lead Programs
- 2. Streamline Energy Funds with Affordable Housing Funds
- 3. Energy Funds as a Construction Financing Source
- **4.** Ensure Funding Awards are Flexible, Easy to Use, and Large Enough to Change Behavior for Affordable Multifamily Properties
- 5. Authorize Programs for the Long-term
- 6. Allocate More Funds to Soft Costs

# **Program Overview**

The **Clean Energy Initiative (CEI)** is a first of its kind program that takes utility ratepayer dollars and combines them with state affordable housing subsidy dollars into one subordinate loan package to fund high-performance affordable housing. CEI is a collaboration between New York State Homes and Community Renewal (HCR) and New York State Energy Research and Development Agency (NYSERDA).

The CEI program incorporates many of the keys to success. It is a prime example of deep partnership between a state housing and energy agency to most efficiently deliver energy funds into LMI housing projects. State agency staff pushed through differing directives to provide a social good, safeguard taxpayer dollars, and find common ground. NYSERDA illustrated trust in HCR by granting energy funds directly to the agency to be combined with housing funds. In the first round of the program, developers were offered the ability to apply for additional funding to achieve high-performance building standards. Those that were awarded received the energy funds seamlessly as part of soft loans that they had already been awarded from HCR to support the affordability components of their projects. In successive rounds, energy dollars were offered to projects on term sheets alongside housing dollars. NYSERDA and HCR agreed to fund a third-party technical assistance provider to work alongside the developers and ensure funds were achieving agency goals. As developers become familiar with these scopes of work, cost compression will occur and funding levels will decrease gradually over time.

# **Program Snapshot**

- Program Size: \$100 million available until program fully subscribed (estimated 5 years)
  - New Construction \$7,500/per unit
  - **Existing Buildings -** \$25,000/per unit
  - Adaptive Reuse- \$12,500/per unit
- Program Objective: The overarching goal of the CEI program is to develop highly efficient all-electric affordable housing as "business as usual" over time. Currently, the program provides substantial incentives for developers to hit HCR's "stretch sustainability goals". The stretch sustainability goals refer to two types, new construction/adaptive reuse and existing buildings. New and reuse properties must be all-electric and meet either Passive House, Enterprise Green Communities Plus, or LEED ZERO specifications. Within existing buildings, applicants can choose any combination of the following: Advanced Envelope performance (nearing Passive House), Electrification of Domestic How Water (high-efficiency heat pumps), and Electrification of Heating (high-efficiency heat pumps).
- Funding Source: Utility ratepayer funds allocated to NYSERDA and State Housing funds allocated to HCR.
- Key Players: New York State Homes and Community Renewal (HCR) and New York State Energy Research and Development Agency (NYSERDA)
- **Financing Type:** Structured as debt and set up as a subordinate subsidy loan with 0.25% interest and amortized over 30-50 years.
- Eligible Applicants: Must be awarded funding through either the 4% Bond Finance or 9% LIHTC program. Funding will be based on construction type as described above.

 Eligible Uses: Energy efficiency installations: heating, hot water, envelope/ventilation upgrades.

## **Demonstrating Keys to Success**

- Create Deep Partnerships between Energy and Housing Agencies to Lead Programs - NYSERDA and HCR set up a memorandum of understanding (MOU) to allow HCR to administer utility rate-payer dollars directly to affordable housing projects. NYSERDA transfers funds to HCR to administer directly. Both NYSERDA and HCR collaborate on the program design and funding levels, and NYSERDA provides technical assistance to HCR and individual development projects to ensure compliance and responsible use of utility rate-payer funds.
- 2. Streamline Energy Funds with Affordable Housing Funds The CEI program is structured as a term sheet and offered to development projects alongside other affordable housing funds. If projects meet CEI term sheet requirements, CEI funds are granted. CEI funds are provided at the same time as other affordable housing funds. HCR reviews eligibility for CEI in the same manner as other affordable housing funds.
- 3. Energy Funds as a Source CEI funds are administered in the same way as other HCR subsidy sources of funding– as a soft subordinate loan available during construction and with nearly 0% interest. Funds are introduced at a project's construction closing, and used as a source during construction.
- 4. Size Funding Awards Large Enough to Change Behavior CEI funding awards are designed to cover the full incremental cost of performing the scope and recognizes that existing buildings typically require greater funding to meet the goals.
- 5. Authorize Programs for the Long-term HCR and NYSERDA completed demonstration rounds of the CEI program to ensure market uptake and refine program design. The CEI program is now fully scaled up and funding is available to the public until spend down. An MOU between the agencies allows for a long-standing program design.
- 6. Allocate More Funds to Soft Costs Affordable housing developers who are funded are able to request up to an additional \$2,500 per unit for design and project management of high-performance measures.

# Program Strengths and Market Transformation

The CEI program is an excellent example of an Energy Program Administrator (NYSERDA) partnering with a Housing Agency to collaborate on program design and lead administration. It is also an example of mixing energy and housing project funds to meet decarbonization goals. The CEI program offsets the costs of adding sustainable features to affordable housing projects, especially those already required in existing state bond finance and federal low-income housing tax credit (LIHTC) programs. Using the business as usual affordable housing platform, including both LIHTC and non-LIHTC financing structures, allows for the seamless dissemination of capital to meet climate goals and the development of a market through a built-in pipeline and built-in funding mechanisms. In addition, the CEI clearly lays out program terms allowing affordable housing owners to easily consider project scoping upfront. CEI provides the following key market innovations:

# Provides energy Incentives in a way that works for affordable housing

HCR recently released three sets of term sheets for the CEI program for New Construction, Adaptive Reuse, and Existing Buildings, each with corresponding scopes of work and funding levels. This is uniquely innovative because energy dollars are provided in a consistent way to other HCR subsidies and can be used directly as a source of funding in a project's financing application to either the 4% or 9% LIHTC program. The traditional barriers of receiving money after work is performed and from various sources are completely removed. This also removes the barrier of having to obtain special approval from other investors to incorporate energy funding into the project capital stack.

## Funds are sized to fully cover incremental costs

CEI funds are designed to cover the incremental costs between HCR's baseline sustainability requirements and stretch goals. Currently, HCR makes up to \$7,500/unit for new construction and \$12,500/unit for adaptive reuse available to meet passive house levels of performance. Up to \$25,000/unit is available for existing buildings to meet all three of HCR's stretch goals (electrification of heating and domestic hot water, and advanced envelope performance), including an additional \$2,500 for soft costs associated with making these upgrades. Acknowledging the unique challenges associated with decarbonizing existing buildings, projects are allowed to select one or two of the above goals for a smaller incentive level.

#### **PROGRAM CASE STUDY #2**

# Maryland Multifamily Energy Efficiency and Housing Affordability Program (MEEHA)



An example of a flexible energy program for LMI projects that can be awarded as a grant or a subordinate loan, in addition to being eligible for both construction projects or operating assets.

# **Keys to Success**

- 1. Carve Out Funds For LMI Programs
- 2. Create Deep Partnerships between Energy and Housing Agencies to Lead Programs
- 3. Streamline Energy Funds with Affordable Housing Funds
- 4. Ensure Funding Awards are Flexible, Easy to Use, and Large Enough to Change Behavior for Affordable Multifamily Properties
- 5. Authorize Programs for the Long-term
- 6. Streamline Application and Compliance

## **Program Overview**

The Maryland Department of Housing and Community Development (DHCD) has been designated as the administrator of the Multifamily Energy Efficiency and Housing Affordability Program (MEEHA). MEEHA provides loans and funding awards for energy efficiency measures directly to new construction, rehabilitation projects, and operating affordable multifamily housing.

In 2008, the Maryland State Legislature set a goal to reduce Maryland's per-capita electricity consumption and peak demand by 15 percent. In response, the **Maryland Public Service Commission (PSC)** launched the **EmPOWER Maryland** initiative, directing the state's electric utilities to develop energy efficiency programs for the residential, commercial, and industrial sectors. After initially attempting to implement LMI programs through utility

companies, the PSC gave responsibility to the Department of Housing and Community Development (DHCD) to administer EmPOWER Maryland's low-income energy efficiency programs. EmPOWER Maryland has two programs targeted at both single family and multifamily low-income housing.



## **Program Snapshot**

- Program Size: \$20.5 million annually. Began in 2009, no expiration.
- Program Objective: The purchase and installation of energy efficiency measures, some soft costs such as energy audits and project management are allowable as well. All scopes of work align with items identified in an energy audit or listed on a prescriptive list. A prescriptive funding option ranges from \$2,500 and \$3,000 per unit, but some projects are able to receive up to \$10,000 per unit, depending on the age and fuel type of equipment being replaced.
- Funding Source: The Maryland Public Service Commission distributed funds to Maryland Department of Housing and Community Development, administered by the Department's Housing and Building Energy Programs division (HBEP). The funds come from utility ratepayers through utility companies serving Maryland that are regulated by Maryland's Public Service Commission. More specifically, fees are added to utility bills for all ratepayers in Maryland to fund energy efficiency and renewable energy in affordable housing.

## Key Players:

- Implementation Agency: Maryland Department of Housing and Community Development
- **Funder:** State of Maryland Public Service Commission
- Financing Type: Funds are issued to affordable housing owners or developers through a grant or subordinate loan, whichever is the preference of the property owner. The loan terms are 0% interest and payments are deferred for the term of the loan.
- Eligible Applicants: New construction, rehabilitation projects, and currently operating affordable multifamily housing projects

 Eligible Uses: energy efficiency measures and solar

## **Demonstrating Keys to Success**

- Carve Out Funds For LMI Programs The Maryland Energy Administration (MEA) entered into an MOU with the Maryland Department of Housing and Community Development (DHDC) to allocate utility rate-payer funds to DHCD and enable them to administer funds directly into housing projects.
- 2. Let LMI Agencies and Organizations Lead The MEEHA program uses the DHCD's infrastructure to distribute energy dollars from the Maryland Energy Administration (MEA) directly to housing projects.
- 3. Streamline Energy Funds with Housing Funds Funds are distributed on a rolling basis. Projects seeking MEEHA funds in addition to other DHCD rental housing financing will have the MEEHA application and review process integrated with the funding applications and underwriting process for DHCD's other rental housing financing. A separate funding application is not required.
- 4. Streamline Application Processes and Compliance DHCD qualifies a pool of contractors to conduct energy audits and perform work to ensure that ratepayer funds are spent responsibly. Building owners first apply to the program for a pre-audit inspection conducted by DHCD. This helps owners better understand whether they will be eligible for energy improvement funding before investing in an energy audit. The measures undertaken must be based on an energy audit completed by a qualified energy auditor.
- 5. Energy Funds as a Source Funds are disbursed only as reimbursement during the course of construction as work is completed and approved by contractors. However, formal terms sheets are provided in the design phase which serve as a commitment to fund if program requirements are met.
- Size Funding Awards Large Enough to Change Behavior The Multifamily Energy Efficiency program covers 100% of costs of energy



efficiency upgrades that are recommended by a DHCD-approved energy auditor. The program incentivizes whole-building upgrades both in units and common areas.



# Program Strengths and Market Transformations

Appointing DHCD as the program administrator facilitates the financing process and enables program staff to seamlessly integrate energy funds with traditional affordable housing capital. Another key to MEEHA's success is its flexibility to structure project funding as loans or grants, depending on property owner preference. Other key features of MEEHA include: integrated, whole-building approach to energy efficiency for electricity measures; alignment with the state's affordable housing incentive programs; provision of funding to cover project energy audits at grant or loan closing; and contractor training opportunities. The program also helps owners by paying for higher efficiency capital improvements they otherwise would have to pay for themselves as part of regular building maintenance, including upgraded HVAC equipment, hot water heaters, and windows.

## **PROGRAM CASE STUDY #3**

# Massachusetts (SMART) Solar Feed-in Tariff Program



SMART introduced a market-based incentive mechanism that incentivizes the development of solar energy by providing long-term revenue certainty for solar projects.

## **Keys to Success**

- 1. Carve Out Funds for LMI Programs
- 2. Energy Funds as a Construction Source
- 3. Ensure Funding Awards are Flexible, Easy to Use, and Large Enough to Change Behavior for Affordable Multifamily Properties
- 4. Streamline Application Processes and Compliance

## **Program Overview**

Massachusetts Department of Energy Resources (DOER) develops and implements policies and programs to ensure the adequacy, security, diversity, and cost-effectiveness of the state's energy supply. The Solar Massachusetts Renewable Target (SMART) Program is a tariff-based incentive paid directly by utility companies to solar power system owners. This incentive program, established to boost solar development in Massachusetts, includes adder incentives for solar power generation in, by, and for low-income communities.

Feed-in tariff-based incentive programs are common in Germany and several other European countries. They work by requiring utilities to pay specific rates, which can be higher or lower than the "retail rate" of electricity, directly to solar system owners for the power that they provide to the utility grid. This differs from net metering, which pays solar producers a rate equal to the "retail rate" of electricity. The incentive rate is determined by the state agency when a solar generation unit is approved for operation and participation in the program. The program establishes a base rate for projects, with adders that improve the rate for projects in and serving LMI communities.

## **Program Snapshot**

- Program Size: Original goal to support the installation of 1,600 MW of solar in Massachusetts.
  Goal updated in April of 2020 to support installation of 3,200 MW of solar throughout the state.
- Program Objective: Foster the development of solar power generation in Massachusetts, encourage prioritization of projects serving LMI Communities.
- Funding Source: Utility rate-payer dollars
- Financing Type: Set dollar per kilowatt hour price required for the utility to purchase all power generated by a given solar system for 10 to 20 years, depending on the system size. The average electric price for utility power in MA is 17.6 ¢/kWh for commercial electricity and 22.79 ¢/kWh for residential energy. The average cost per watt of solar power in MA is between \$3 to \$5. Community solar projects that serve half of their energy produced to LMI are awarded additional 6 ¢ per/kWh. LMI community solar projects under 25 kW receive 230% of base compensation rate, based on utility service territory.

#### Key Players:

- Implementation Agency: Massachusetts Dept of Energy Resources (DOER)
- **Funder:** Investor-owned utilities collect rate-payer dollars to fund the program
- Independent Verifiers
- LMI Solar Generation Owners
- Eligible Applicants: Receiving additional incentives for servicing low-income end users requires the generation unit's owner to demonstrate either all of the unit's power is provided to a low-income customer or that at least 15% of the unit's output is allocated to a low-income customer in the form of electricity or bill credits at no cost to the customer.
- Eligible Uses: Solar installations



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## **Demonstrating Keys to Success**



1. Carve Out Funds for LMI Programs: SMART

offers a baseline incentive for all solar projects that apply for the program in Massachusetts, as well as an additional incentive for projects serving LMI. This boost is carved out to acknowledge the importance of serving LMI communities and the challenges and additional costs associated with reaching LMI communities.

- 2. Energy Funds as a Construction Source: The long-term commitment provided by SMART is structured to be used as a source of operating income to support and secure loan payments.
- 3. Ensure Funding Awards are Flexible, Easy to Use, and Large Enough to Change Behavior for Affordable Multifamily Properties: Solar developers have noted that the LMI incentive boost is significant enough that it has encouraged them to switch their projects over from serving market-rate to LMI customers. The program structure strongly encourages projects to prioritize LMI projects over market-rate.
- **4. Streamline Application Processes and Compliance:** Feed-in tariffs provide an upfront fixed price per unit for solar power for a fixed term, which offers owners clarity and consistency. The simplicity of feed-in tariffs makes it easy for solar owners to apply and comply with incentives and has driven massive growth in LMI solar in Massachusetts.

# **Program Strengths and Market Transformation**

SMART includes key features that effectively serve LMI communities. First, the LMI boost incentive is sized to incentivize solar developers to serve LMI communities rather than market-rate. Furthermore, 5% of each block in the program's pay schedule is reserved for disbursement to low-income community servicing projects, guaranteeing a share of the benefits allocate to LMIs.

To keep the program streamlined, solar owners apply once upfront and receive set terms of 10 to 20 years, depending on the project size. Applicants need not reapply or pay for additional monitoring, as traditional net metering works to calculate electricity sent back to the grid, which will be used with the project's assigned compensation rate to calculate a unit's monthly payout. Application, monitoring, and payout are all streamlined to boost participation.

## **AGENCY CASE STUDY #1**

# New York State Energy Research and Development Authority (NYSERDA)

An example of a state energy office going to great lengths to serve LMI communities.

## **Keys to Success**

- 1. Carve Out Funds For LMI Programs
- 2. Allocate More Funds to Soft Costs
- 3. Ensure Funding Awards are Flexible, Easy to Use, and Large Enough to Change Behavior for Affordable Multifamily Properties

## **Agency Overview**

The <u>New York State Energy Research and Development Authority</u> (<u>NYSERDA</u>) is the State's chief energy agency. The Agency is authorized with funding to promote energy efficiency and renewable energy sources across New York State, and to target a specific set of programs to serve LMI projects. NYSERDA is a public benefit corporation and was founded in 1975 and its mission is to "advance energy solutions and protect the environment" through a variety of projects, including research and development of new energy technologies, deployment of renewable energy and energy efficiency technologies, education and outreach on energy efficiency and renewable energy, assistance to low- and moderate-income households, and support for the development of a clean energy economy.

NYSERDA has created innovative programs that provide meaningful energy funds per unit through their LMI programs. These programs take a more comprehensive approach than the typical direct install utility incentives that are typical in the market. These include:

Assisted Home Performance with ENERGY STAR: This program provides

**NYSERDA** 

no-cost or reduced-cost energy efficiency upgrades to income-eligible homeowners and renters.

- EmPower New York: EmPower New York offers free energy efficiency upgrades to income-eligible households.
- Clean Heating and Cooling Communities: This program offers financial incentives and financing options for LMI residents to install clean heating and cooling technologies in their homes. Eligible technologies include air source heat pumps, ground source heat pumps, and solar thermal systems.
- Community Solar for LMI: NYSERDA supports community solar projects that specifically target LMI customers. In addition, NYSERDA has the NY-Sun program that provides direct incentives for solar upgrades with adders for projects that target LMI.
- Low- to Moderate-Income Financing: NYSERDA offers financing options to help LMI households overcome upfront costs associated with energy efficiency improvements and clean energy installations. In addition, the New York Green Bank (NYGB) is a state-sponsored, specialized financial entity and a division of NYSERDA, that started in 2014 to increase private investment in renewable energy and energy efficiency projects. The NYGB just announced a Community Decarbonization Fund with debt and equity products with concessionary terms for LMI projects.

# **Agency Snapshot**

- Agency Size: <u>\$960 million between 2020 and 2030</u>, of which \$614 million is allocated to programs for LMI communities that covers programs for new construction and retrofits of affordable housing
- Agency Objective: Meet state climate goals, while also allocating at least 35% of annual funding to LMI projects and low-income communities to ensure an inclusive transition to clean energy
- Funding Source: NYSERDA utilizes funds from <u>multiple sources</u> including: utility rate-payer funding, federal funding allocation, <u>Clean Energy Fund</u>, <u>Clean Energy Standard</u>, <u>Regional Greenhouse Gas Initiative (RGGI)</u>, and other funding sources through public and private sponsors
- **Key Players:** NYSERDA and New York State Public Service Commission
- Financing Type: Loans, grants, incentives, credit enhancements

**NYSERDA** 

## **Demonstrating Keys to Success**



**1.** Carve Out Funds For LMI Programs:

NYSERDA and the State Utilities are directed by the Public Service Commission (PSC) to develop a statewide implementation plan to drive at least 35% of annual funds into LMI Communities. The outcome of the plan has been the allocation of over 60% of funds for LMI communities.

- 2. Allocate More Funds to Soft Costs: Several of NYSERDA's pilot programs include soft costs as an allowable use of program funds, specifically to cover integrated design costs, energy audits and other additive soft costs.
- 3. Ensure Funding Awards are Flexible, Easy to Use, and Large Enough to Change Behavior for Affordable Multifamily Properties: NYSERDA gets direct funding from the Public Service Commission (PSC) to provide innovative and flexible pots of funding to the industry. NYSERDA is specifically authorized to create unique programs to serve LMI projects and low-income residents, while also meeting statewide climate goals. Of the total \$960 million, NYSERDA is allocated \$614 million through 2030 for LMI programs.

## **Agency Strengths and Market Transformation**

NYSERDA has been very effective at carving out funds to serve LMI projects. At least 35% of funds annually are carved out for LMI projects and low-income communities. This is transformative because NYSERDA is a State Energy Agency that creates flexible pots of funding that do not mirror typical utility program direct-install approaches; instead, it takes a programmatic approach to funding energy into LMI projects directly. The organization has also displayed openness to letting other agencies targeting LMI communities lead, for example granting funds directly to New York State Housing Agencies to administer directly to affordable residential projects. The organization values the benefits of authorizing programs for the long term.

### AGENCY CASE STUDY #2

# California Air Resources Board (CARB)



CARB fundamentally altered the state's ability to address climate change in a holistic manner by designing and overseeing California's Cap-and-Trade program. The Affordable Housing and Sustainable Communities program, funded through Cap-and-Trade proceeds, is the state's largest and only permanently-funded source of funding for affordable housing production.

## **Keys to Success**

- 1. Carve Out Funds for LMI Programs
- 2. Create Deep Partnerships between Energy and Housing Agencies to Lead Programs
- 3. Streamline Energy Funds with Affordable Housing Funds
- 4. Ensure Funding Awards are Flexible, Easy to Use, and Large Enough to Change Behavior for Affordable Multifamily Properties
- 5. Authorize Programs for the Long-term

# **Agency Overview**

The **California Air Resources Board (CARB)** is responsible for implementing policy, regulations, funding, and research mandated by landmark state climate legislation, including AB 32 (2006), SB 32 (2016) and AB 1279 (2022) which set statewide emission reduction standards through the year 2045. CARB also designed and oversees California's **Cap-and-Trade program**, a financial mechanism launched in 2013 which incentivizes GHG-generating entities to comply with mandated reduction standards through the purchase of credits. Cap-and-Trade covers GHG-emitting sources amounting to 85 percent of the state's total emissions. The program is required to invest a minimum of 35% of its proceeds in Disadvantaged Communities (DACs) and projects benefiting low-income communities.

The Cap and Trade program funds a wide range of multi-sectoral projects, including those related to affordable housing production and proximate transit-related infrastructure. The Affordable Housing and Sustainable Communities (AHSC) program is one of the largest state-financed public subsidy programs, providing direct capital for the construction of affordable housing units, paired with grants for transit-related infrastructure projects benefiting the residents of the housing and community at large. Through **six rounds of funding** to date, AHSC program investments total \$2.5 billion which has resulted in the production of 15,324 affordable housing units and reduced GHG emissions by 4.4 million metric tons. The AHSC program requires 50% of its program funds be invested in affordable housing and transit projects located in DAC's.

The GGRF also funds the Transformative Climate Communities (TCC) program, collaborative projects driven by communities and implemented at the neighborhood level. To date, **\$241 million has been allocated** to the program resulting in 91 projects benefitting low-income households. The TCC program has funded development and infrastructure projects including climate education, environmental resilience and solar and energy efficiency initiatives.

Other GHG-reduction programs funded through Cap-and-Trade under the CARB's purview range from low-carbon economy workforce development, to wildfire response and readiness, to agricultural initiatives. A complete program list can be viewed **here**. Total cumulative appropriations through fiscal year 2022-23 are \$22.5 billion, including \$2.97 billion in FY 2022-23.

## **Agency Snapshot**

- Funding Size: The <u>Cap-and-Trade program</u> has appropriated \$2.97B in total program funds in FY 2022-23.
- Agency Objectives: Lead agency responsible for implementing climate change programs designed to reduce greenhouse gas emissions
- **Funding Source:** Cap-and-Trade auction proceeds
- Key Players: Strategic Growth Council (SGC), California Department of Housing and Community Development (HDC)



 Financing Type: AHSC provides funding structured as grants and public subsidies; TCC project funding is structured as grants.



## **Demonstrating Keys to Success**

1. Carve Out Funds for LMI Programs: CARB manages the state's Cap-and-Trade program which, by legislative mandate, must allocate a minimum of 25% of its funds to DAC's and low-income communities. The AHSC program, which also falls under the CARB's purview, allocates 50% of its program funds to affordable housing and transit projects in DACs. TCC grants require the project area to be a DAC or low-income community.

2. Create Deep Partnerships Between Energy and Housing Agencies to Lead Programs: CARB engages public agencies focused on both climate and housing to help design and implement programs funded with Cap-and-Trade proceeds. The Strategic Growth Council (SGC) is the lead agency responsible for administering the TCC and AHSC programs, the latter in partnership with the California Department of Housing and Community Development (HCD) which implements the majority of the state's affordable housing production funding.

- **3. Streamline Energy Funds with LMI Funds:** CARB directs Cap-and-Trade proceeds into the AHSC program which then deploys the capital directly into affordable housing projects and transit related infrastructure in the form of "soft" loans and grants. The financing structures are designed to be compatible with other sources of funding typically found in affordable housing developments, including other public subsidies, conventional debt, and investment equity including low-income-housing tax credits (LIHTC).
- 4. Ensure Funding Awards are Flexible, Easy to Use, and Large Enough to Change Behavior for Affordable Multifamily Properties: The current maximum AHSC award per project is \$50 million, with a single affordable housing developer eligible to receive up to a total of \$100 million across multiple projects. The size and scope of eligible uses allowed by AHSC makes the program highly attractive to both developers and their public agency partners which receive transit-related infrastructure grants as part of funding award.

## 5. Authorize Programs for the

**Long-term:** CARB has existed since 1967 and created the Cap-and-Trade program as the primary financial vehicle to reducing GHG emissions in California for the long-term. The AHSC program is the only state-funded affordable housing program with a statutory, ongoing yearly allocation; SB 862 (2014) permanently appropriated 20 percent of available GGRF proceeds to the AHSC program.



## **Agency Strengths and Market Transformation**

With the advent of the Cap-and-Trade program in 2012, CARB fundamentally altered the state's ability to address climate change in a holistic manner. Revenue generated by the Cap-and-Trade program provides permanent sources of funding to programs with the sole purpose of reducing GHG emissions. The range of programs under the CARB's purview touches virtually every sector of industry in California, not least of all affordable housing via the AHSC program, which is the state's largest and only permanently-funded source of funding for affordable housing production. Projects funded by AHSC have resulted in transformative positive outcomes, providing housing stability for thousands of low-income households, and co-benefits for surrounding communities and local public agencies in the form of GHG-reducing public infrastructure.



# Program Design Keys to Success for Green Banks

According to the **Coalition for Green Capital**, as of 2023, there are 23 green banks in 17 states and the District of Columbia, with \$9 billion in investments. Green Banks play a critical role in delivering energy funding into LMI communities: according to the Coalition, more than a quarter of the **\$4.64 billion invested by the American Green Bank Consortium in 2022** were in low-income and disadvantaged communities. As such, the team developed these keys to specifically call out a set of detailed best practices and lessons learned from Green Banks and other speciality "green" lending institutions across the country.

#### **Green Bank Keys to Success**

- 1. Create a Separate LMI Fund
- 2. Offer Genuinely Below-Market Products
- 3. Focus on Major Capital Events
- 4. Credit Enhance First-Position Mortgage Products
- 5. Train Underwriters on Energy Savings
- 6. Subcontract Program Administration to Established LMI Experts
- 7. Lower Internal Green Bank Soft Costs
- 8. Create Unique Investment Criteria and Performance Metrics for LMI Products

#### **Create a Separate LMI Fund**

Given the unique characteristics of affordable housing finance compared to commercial real estate finance (see "Background" section), green banks will

see greatest success by providing different products and terms specifically targeted at LMI communities. Dedicated LMI funds also enable green banks to establish unique performance metrics based on social benefits and impact in LMI communities.

### **Offer Genuinely Below-Market Products**

To address rent restrictions, split incentives, and higher soft costs facing affordable housing developers (see "Background" section), green banks must offer genuinely below-market terms. The team recommends the following:

- **1.** Lower interest rates (0-1%) with variable interest/principal payment structures
- 2. Longer terms (meeting or exceeding a project's covenanted affordability period)
- 3. Higher loan to value (Over 90%)
- 4. Unsecured loans
- 5. Flexibility in subordination

### **Focus on Major Capital Events**

Introducing new capital sources into the financing structures of existing properties, especially those financed with a combination of LIHTC and public subsidies, is particularly challenging due to lending terms imposed by in-place funders and investors. When a property is undergoing a major capital event, such as LIHTC resyndication, owners are required to re-negotiate terms with funders and investors. Aligning the introduction of energy-specific funding programs with a major capital event allows the owner to incorporate these programs' terms into existing negotiations. Similarly, for properties that are currently unsubsidized affordable housing (ie. naturally occurring affordable housing), the introduction of energy-related funding is ideal at an acquisition or refinance event in order to leverage and complement other funding sources.

#### **Credit Enhance First-Position Mortgage Products**

The best debt terms on the market are provided by standard first-mortgage products. First-mortgage products for U.S. real estate, including affordable housing, are secured on the market and backed by the federal government, enabling lenders to offer some of the best debt terms in the world. Green banks are typically unable to offer more competitive products. Rather than competing, green banks can work together with first-mortgage lenders, using their funds to create credit-enhancement products that enable firstmortgage lenders to provide even better terms to those LMI projects pursuing carbon reduction efforts.

#### **Train Underwriters on Energy Savings**

As developers are looking for new sources to fund decarbonization, they are increasingly turning to energy bill reductions to lower expenses, boost project income, and ultimately increase their upfront loan size to fund decarbonization. Green banks could benefit from training underwriters to better understand utility bill savings and how developers are trying to properly leverage such savings to increase upfront loan sizing.

### **Subcontract Program Administration to Established LMI Experts**

Individual LMI project investments are relatively small for green banks and do not typically align with their core expertise. To address this, successful green banks subcontract program administration to established LMI lenders or intermediaries like Community Development Finance Institutions (CDFIs), who have strong track records implementing products for LMI communities. Green banks can play a critical role facilitating both individual project investments in and the transformation of the lending industry, for example by helping to standardize products and services for clean energy lending, providing bridge financing and taking on risk that is beyond what established lenders can bear. An increase in the size of energy fund resources should be accompanied by a scaling of lending expertise and technical assistance support to LMI lenders.

### **Lower Internal Green Bank Soft Costs**

To offer genuinely below-market loan products, green banks should reduce transaction costs by creating standardized loan agreement templates that consider the underwriting requirements and terms enforced by other funding agencies. This entails a familiarity with LMI lending industry norms, underwriting practices and asset management strategies, particularly the affordable housing sector. To do this, green banks could establish LMI "deal teams" with sufficient capacity, expertise and domain knowledge of affordable housing and LMI investing to implement any LMI investment platform. The LMI deal team should also encompass domain knowledge of building electrification strategies, deep energy retrofits and complementary solar strategies. This expertise is needed for Green Banks to establish a network of LMI lending partners and to create and facilitate the standardized products necessary for market transformation.

# Create Unique Investment Criteria and Performance Metrics for LMI Products

Many current green bank standards require returns that 'crowd-in' market-rate capital to animate the market; however, the unique characteristics of affordable housing finance make specific financial returns challenging. Instead, green banks should set the most favorable rates and fees needed to maximize benefits for members of LMI households, generally consistent with comparable terms and pricing for LMI market transactions. In order to remain self-sustaining, Green Banks should price their commercial (non-LMI) offerings to ensure that total revenues, including those from the LMI portfolio, cover total operating costs and expected losses from both portfolios.

# GREEN BANK CASE STUDY #1 Connecticut Green Bank



The **Connecticut Green Bank** is a quasi-public agency that leverages ratepayer funds with private capital to offer low-cost, long-term financing for clean energy projects. The Connecticut Green Bank is the first green bank in the United States with an explicit mission to focus on low-and-moderate income communities.

## **Keys to Success**

- 1. Create a Separate LMI Fund
- 2. Offer Genuinely Below-Market Products
- 3. Credit Enhance First-Position Mortgage Products
- 4. Train Underwriters on Energy Savings
- 5. Create Unique Investment Criteria and Performance Metrics for LMI Products

## **Program Overview**

As the first Green Bank in the U.S., the Connecticut Green Bank (CTGB) is a quasi-public corporation established in 2011 to develop and implement strategies that bring down the cost of clean energy in order to make it more accessible and affordable to consumers in the residential, commercial, and industrial sectors. To further the mission of the Green Bank, an executive order signed by the governor in 2019 called on the state to reach zero carbon emissions by 2040. The CTGB has an explicit mission, established and emphasized by its board of directors, to serve the low-income and multifamily market. The creation of this mission involved a deliberate process of recognizing the importance of addressing the energy needs of these underserved communities. The green bank established a dedicated Multifamily Housing Program focused on improving efficiency in multifamily properties in low- and moderate-income households along with other LMI focused initiatives.

# **Program Snapshot**

 Key Players: State of Connecticut, <u>State Public Utilities Regulatory</u> <u>Authority</u>  Funding Sources: CTGB is capitalized by the state's Clean Energy Fund, which comes out of a surcharge on electric ratepayer bills, the State's Regional Greenhouse Gas Initiative (RGGI) proceeds, and Federal grant funding.



- Financing Type and Structure: grants, loans, leases, and credit enhancements
- What can it be used for: Investments in residential, municipal, small business, and commercial clean energy projects
- Eligible Applicants: Real estate owners and businesses undertaking energy efficiency and renewable energy projects in the State of Connecticut
- Eligible Uses: Energy efficiency, renewable energy generation, demand response, electric battery storage, and resiliency

## **Demonstrating Keys to Success**

- 1. Create a Separate LMI Fund CTGB began by obtaining input from the market to formulate its approach to LMI and partnered with various organizations to create and implement LMI programs. These partnerships have been crucial in reaching and serving LMI communities effectively. Partners include:
  - Community Development Financial Institutions (CDFIs): partnered with CDFIs, such as Capital for Change and Connecticut Housing Investment Fund, to expand access to financing options for LMI households.
  - Affordable Housing Developers: worked closely with affordable housing developers to integrate clean energy and energy efficiency measures into affordable housing projects by collaborating with organizations like the Corporation for Independent Living and Mutual Housing Association of Southwestern Connecticut.
  - Energy Assistance Agencies: established partnerships with energy assistance agencies in Connecticut, such as Operation Fuel and Connecticut Association for Community Action (CAFCA). These agencies play a vital role in identifying LMI households in need of energy assistance and referring them to the Green Bank's programs. Through these partnerships, the green bank can reach a wider LMI audience and provide tailored support.
  - **Local Utilities:** collaborated with local utilities, including Eversource

and United Illuminating, to develop energy efficiency and renewable energy programs for LMI communities. These partnerships leverage the utilities' existing customer relationships and distribution networks to reach LMI households with targeted programs, incentives, and education campaigns.



- Nonprofit Organizations and Community Groups: partnered with various nonprofit organizations and community groups to engage LMI communities, raise awareness about clean energy opportunities, and provide education and outreach. Partnerships with organizations like Solar Youth and Neighborhood Housing Services of New Haven have facilitated community-driven initiatives, including the development of community solar projects and energy efficiency programs.
- Offer Genuinely Below-Market Products: CTGB develops financing solutions tailored to the unique financial circumstances of LMI households and offers both financing and technical assistance for every stage of the process, from planning to installation to performance monitoring through both predevelopment financing and project financing. CTGB oversees a variety of products and initiatives targeted to LMI communities, including an LMI solar incentive, a statewide Smart-E lender for credit-challenged homeowners, and affordable multifamily housing energy financing products like the Low Income Multifamily Energy (LIME) Loan, C-PACE, and predevelopment loan programs. Of particular note is the Low-Income Multifamily Energy (LIME) Loan, a 20 year unsecured loan directed to low-income properties. CTGB partnered with Capital for Change to provide unsecured multifamily energy financing for owners seeking to improve the energy performance, economics, and health and safety of their properties. Loans are repaid from energy cost savings for terms up to 20 years.
- 3. Credit Enhance First-Position Mortgage Products: CTGB uses a loan loss reserve (LLR) alongside financing, actively co-lending alongside its LLR to create more favorable terms for LMI projects in the market. If projects are not eligible for C-PACE or LIME financing, CTGB also works with multifamily properties to provide credit enhancements. CTGB coordinates with various agencies, such as the Connecticut Housing Finance Agency and local CDFIs to ensure financing products integrate with the need and timing of other multifamily and LMI funding programs.

## 4. Train Underwriters on Energy

**Savings:** Underwriters at CTGB are trained to better understand energy savings and to properly calculate energy savings to increase upfront loan sizing. Underwriters receive training specific to the energy savings programs they will be working on. This training covers the details of the programs, including eligibility criteria, project evaluation methodologies, and documentation requirements. They learn about the technical aspects of energy efficiency measures, such as building systems, equipment, and measurement and verification techniques.



5. Create Unique Investment Criteria and Performance Metrics

**for LMI Products:** CTGB is a leader in tracking its progress against performance metrics and reporting them to the public and thus provides transparency to the market. The green bank assesses its progress in this market sector by tracking projects by census tract. CTGB defines low to moderate income as less than 100% of AMI.

## **Program Strengths and Market Transformation**

The Connecticut Green Bank has an explicit mission to serve low-income and multifamily markets, making it unique amongst green banks nationally. It is an example of how a green bank can use energy capital to invest in LMI and smaller scale clean energy. Every dollar invested in CTGB financing programs supports \$10 of private-sector investment.

CTGB is leading the transition of financing away from only government-funded grants, rebates, and other subsidies and towards deploying increasing levels of private capital, accelerating market adoption for products that truly serve LMI. CTGB's explicit mission to serve LMI communities, alongside its coordination with existing lenders and housing agencies as well as its transparency in the market makes it a transformative example.

### **GREEN BANK CASE STUDY #2**

# New York City Energy Efficiency Corporation (NYCEEC)



The **New York City Energy Efficiency Corporation (NYCEEC)** is a unique non-profit organization that specializes in financing energy efficiency and clean energy projects. NYCEEC operates as a public-private partnership and drives market transformation through innovative financing approaches in pursuit of environmental and economic sustainability.

## **Keys to Success**

- 1. Offer Genuinely Below-Market Products
- 2. Credit Enhance First-Position Mortgage Products
- 3. Train Underwriters on Energy Savings
- 4. Lower Internal Green Bank Soft Costs
- 5. Create Unique Investment Criteria and Performance Metrics for LMI Products

## **Program Overview**

The New York City Energy Efficiency Corporation (NYCEEC) is a non-profit green lender focused exclusively on financing energy efficiency and clean energy in buildings in New York City. NYCEEC was launched in 2010 by the New York City Mayor's Office of Sustainability, making it the first local green bank in the United States. The City of New York initially capitalized NYCEEC to advance the City's climate and economic development goals by providing energy efficiency financing programs, products, and services for NYC's most GHG intensive sector, buildings. In response to market needs, NYCEEC has undergone many changes, including the transition to an independent non-profit, an expansion of its geographic reach, and growth in its product offerings (e.g., PACE).

Partnering has allowed NYCEEC to achieve scale and be accessible to a wide range of project types and sizes. NYCEEC works closely with incentive providers and financial partners such as the New York State Energy Research and Development Authority (NYSERDA), utilities, and financial institutions. NYCEEC bridges conventional lending market gaps to provide options that match borrower needs to achieve lasting cost and energy savings. NYCEEC has successfully blended public, private and philanthropic capital to offer a range of climate financing solutions to building owners, property managers, project developers and contractors. Multifamily buildings comprise 40% of NYC's building stock and NYCEEC is committed to making sure that LMI multifamily housing properties are served by its products. Twenty percent of NYCEEC's loan balances through 2019 were for affordable housing properties.

# Program Snapshot

- Key Players: New York City, traditional banks, affordable housing agencies, utilities, and NYSERDA
- Funding Source and Administered by: New York State, Federal government, commercial banks and philanthropic organizations.
- Financing Type and Structure: grants, loans, leases, and credit enhancements
- What can it be used for: Invest in residential, municipal, small business, and commercial clean energy projects
- Eligible Applicants: Real estate owners and businesses undertaking energy efficiency and renewable energy projects throughout the Northeast and Mid-Atlantic regions.
- Eligible Uses: Energy efficiency, renewable energy generation, demand response, electric battery storage, and resiliency

## **Demonstrating Keys to Success**

1. Offer Genuinely Below-Market Products: Addressing LMI is stated in the agency's mission and vision. In addition, NYCEEC partners with the public sector, such as with the State Energy Agency, with a focus on delivering LMI products and approach to LMI communities. NYCEEC provides flexibility in addressing LMI by offering interest rates at the lower end of its ranges for projects that benefit LMI communities. NYCEEC works with borrowers to determine the appropriate loan product for the situation and will provide pricing and other terms based on considerations including loan term, borrower creditworthiness, and market conditions.

## 2. Credit Enhance First-Position Mortgage Products: NYCEEC has several

products that are designed to work well on smaller scale deals and LMI projects. NYCEEC has explicitly created energy lending products that can work alongside and subordinate to housing loans to bring energy dollars into housing deals. Examples include:

- a. **Energy Efficiency Financing Program (EEFP):** under the EEFP, NYCEEC provides loans that are subordinate to existing mortgage loans, allowing building owners to secure financing for energy efficiency improvements without disrupting their primary housing loans. This program helps bridge the financing gap for energy-related projects by offering flexible terms and longer repayment periods. By offering parallel and subordinate financing, the EEFP enables building owners to incorporate energy efficiency measures into their housing deals, ensuring that the buildings meet high energy performance standards while still maintaining favorable terms on their primary housing loans.
- b. **Property Assessed Clean Energy (PACE):** PACE allows building owners to fund energy efficiency and renewable energy with a loan that is then repaid over time through an annual assessment added to the property owner's tax bill. This assessment stays with the property, even if it is sold, ensuring that the repayment obligation transfers to the new owner.
- 3. Train Underwriters on Energy Savings: NYCEEC has built a team of energy underwriting experts with experience financing small scale deals. NYCEEC provides ongoing training to underwriters to ensure that they are well-versed in the latest LMI community and affordable housing financing structures. As such, NYCEEC is able to carefully evaluate the technical aspects of projects in an attempt to ensure energy savings, which provide cash flow to repay the loan, are realized.
- 4. Lower Internal Green Bank Soft Costs: Through highly-specialized in-house and outsourced engineering capabilities, NYCEEC is able to process projects while keeping transaction costs low on smaller transactions.
- 5. Create Unique Investment Criteria and Performance Metrics for LMI Products: NYCEEC bridges conventional lending market gaps to provide options that match borrower needs to achieve lasting cost and energy savings. NYCEEC will lend at concessionary rates on a limited



basis when there is no viable market alternative and when it is necessary to facilitate deployment of climate solutions. NYCEEC tracks the specific percentage of its loan balances that go toward affordable housing properties.



# Program Strengths and Market Transformation

Throughout its inception, NYCEEC's diversity of loan products has allowed the bank to finance the broadest range of borrowers. NYCEEC offers pre-development and construction loans to address the earlystage capital needs of borrowers, as well as permanent loans backed by equipment, Energy Service Agreements (ESAs), Power Purchase Agreements (PPAs), and PACE assessments. NYCEEC operates in markets underserved by traditional lenders: a majority of NYCEEC's loans support projects at affordable housing properties.

Overall, NYCEEC offers market transformative solutions by providing capital in underserved markets, offering diverse products that can supplement and work alongside existing LMI loans to enhance and create a market for loans in this sector. In addition, NYCEEC has created a mission and team that values smaller scale projects and provides products that serve the LMI market.

## Conclusion

This report offers examples and recommendations for public agencies and green banks to structure programs that drive more energy efficiency and climate funding into LMI communities, an effort that is particularly timely due to the new opportunities arising from the Federal Inflation Reduction Act of 2022 (IRA). We recommend that state and local leaders prepare a comprehensive strategy for pursuing IRA funds, using this opportunity to revisit program design and implementation of energy programs for LMI communities. Thoughtful program design will ensure the effective utilization of limited resources to address both the housing and climate crisis.

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