



**A GREENER  
FUTURE STARTS  
WITH HOMES**

# **STRATEGIC AND OPERATIONAL PLAN**

MARCH 2024



**TREEHOUSE | EASTHAMPTON, MA**  
**DEVELOPER: BEACON COMMUNITIES, LLC**

PHOTO: BEACON COMMUNITIES

## ACKNOWLEDGMENTS

The MCCB Strategic and Operating Plan was prepared with support from Jessica Luk-Li at Climate Impact Advisors and Michael Freedman-Schnapp, Marc Jahr, and Leanne Fitzner at Forsyth Street Advisors.

## MISSION

MCCB's mission is to facilitate investment in projects that will reduce greenhouse gas (GHG) emissions in key sectors of the Massachusetts economy.

## PURPOSE

MCCB invests public and private resources in financing products and services that advance the Commonwealth's 2050 climate goals.

## INVESTMENT FOCUS

**MCCB is the first climate bank in the nation to launch with a specific focus on decarbonizing affordable housing.** Statewide, residential and commercial buildings are responsible for 30% of all emissions. MCCB activities will contribute to achieving net zero emissions by 2050 while also meeting the state's goals for the production and preservation of affordable housing. Strategically placed within MassHousing, the state's Housing Finance Agency, MCCB leverages MassHousing's existing capabilities and infrastructure to support an initial focus on affordable rental housing and homeownership. MCCB financing will help deliver decarbonization benefits to low- and moderate-income (LMI) residents and Environmental Justice (EJ) communities disproportionately burdened by climate change, pollution, and poor health.

**MCCB aggregates and deploys state, federal, private, and philanthropic funds to support the integration of decarbonization, energy efficiency, and clean energy technologies into existing and new buildings statewide.** MCCB accomplishes this by developing financing solutions that complement existing financial supports, leverage additional resources, and close market gaps. MCCB will utilize a revolving model to provide a return on capital in order to grow and sustain MCCB's impact over time.

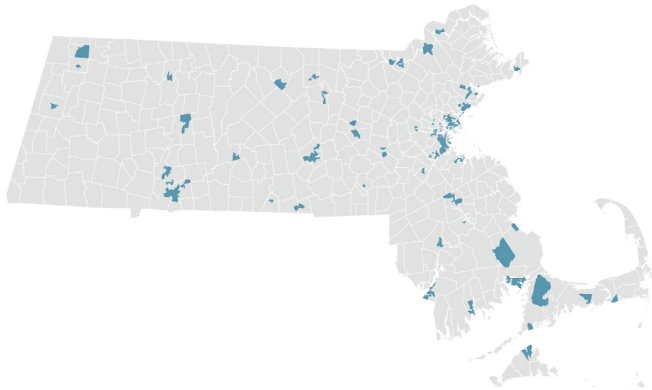
## STRATEGY & IMPACT

**MCCB has \$50 million in flexible seed capital from the Commonwealth, but substantially more funding will be needed – on the order of \$350 million – to support projected lending activities over the next three to five years and to enable the decarbonization of 6,000+ units of affordable rental and homeownership units.** As MCCB grows, a primary function will be to aggregate, facilitate, and enhance the full complement of financing sources and supports available for building decarbonization projects in the Commonwealth.

**The initial lending strategy of MCCB will be to leverage MassHousing's existing capabilities and infrastructure, including both rental and homeownership lending.** MCCB will leverage MassHousing's existing relationships, sophisticated lending infrastructure, and well-developed expertise in combining multiple financing sources into comprehensive project funding solutions. MCCB will be prepared to launch and deploy capital at scale immediately, without the lead-time that is necessary in a start-up, stand-alone organization. In particular, MassHousing's underwriting, accounting, asset management, and marketing departments, as well as its existing origination networks, will enhance MCCB's ability to aggregate and deploy capital into projects quickly. Over time, MCCB will lead the development of tools, products, and approaches to financing decarbonization projects that can be made available to other lenders and financial institutions.

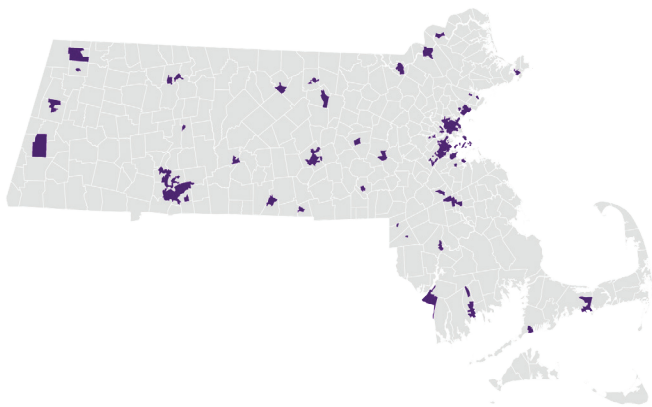
**Expansion into other areas beyond affordable housing can be considered either through partner agencies or after MCCB has introduced its initial product offerings and established a track record in LMI-focused residential lending or both.** This will require MCCB and MassHousing to evaluate the feasibility of passing funding through to partners for non-residential uses.

## POPULATION & LOCALITY DEFINITIONS



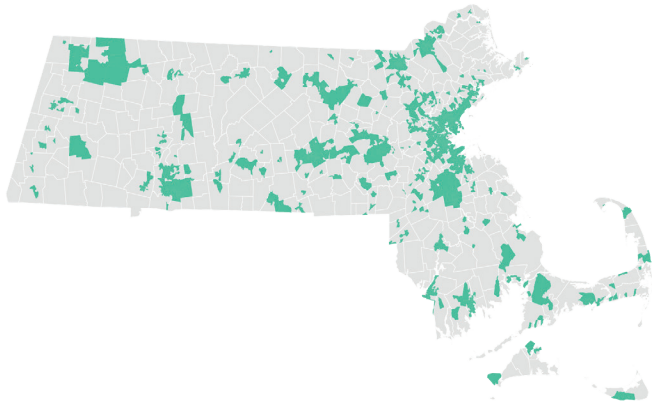
### **QUALIFIED CENSUS TRACTS (QCTS)**

Census Tracts where 50% of households have incomes below 60% of the Area Median Gross Income (AMGI) or have a poverty rate of 25% or more as defined by the U.S. Department of Housing and Urban Development.



### **FEDERAL DISADVANTAGED COMMUNITY DEFINITIONS IN THE CLIMATE AND ECONOMIC JUSTICE SCREENING TOOL (CEJST)**

The White House Council on Environmental Quality developed the CEJST mapping tool, which identifies census tracts that are disadvantaged based on various risk categories including climate change, energy, health, housing, legacy pollution, transportation, water, and workforce development. CEJST considers a census tract disadvantaged if it is at or above the threshold for one or more risk category and at or above the threshold for an associated socioeconomic burden.<sup>1</sup>

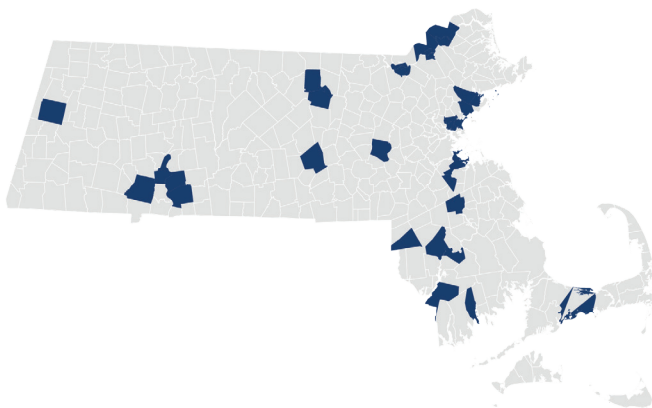


### ENVIRONMENTAL JUSTICE (EJ) POPULATION

a neighborhood that meets one or more of the following criteria:

- the annual median household income is not more than 65% of the statewide annual median household income;
- minorities comprise 40% or more of the population;
- 25% or more of households lack English language proficiency; or
- minorities comprise 25% or more of the population and the annual median household income of the municipality in which the neighborhood is located does not exceed 150% of the statewide annual median household income;

or a geographic portion of a neighborhood designated by the Massachusetts Secretary of Energy and Environmental Affairs as an EJ population in accordance with law.



### GATEWAY CITIES

The statutory definition is a municipality with a population greater than 35,000 and less than 250,000 with a median household income below the Commonwealth's average and a rate of educational attainment of a bachelor's degree or above that is below the Commonwealth's average. There are currently 26 Gateway Cities recognized in the Commonwealth: Attleboro, Barnstable, Brockton, Chelsea, Chicopee, Everett, Fall River, Fitchburg, Haverhill, Holyoke, Lawrence, Leominster, Lowell, Lynn, Malden, Methuen, New Bedford, Peabody, Pittsfield, Quincy, Revere, Salem, Springfield, Taunton, Westfield, and Worcester.

## TERMS TO KNOW

---

### CLIMATE TERMS

---

<b>DECARBONIZATION</b>	The process of reducing or eliminating carbon dioxide (CO <sub>2</sub> ) and other greenhouse gases from energy systems and the economy. In the housing sector, decarbonization typically refers to removing on-site combustion of fossil-fuels for domestic heat and hot water and transitioning to all-electric systems.
<b>EFFICIENCY</b>	Installation of building features that use less energy to perform the same task or produce the same result. Does not typically involve switching fuel sources.
<b>NEAR NET-ZERO ENERGY (NEAR-NZE)</b>	Based on the term “Nearly Zero Energy” defined by the European Commission, a Near Net Zero building has very high energy performance. The amount of energy required should be covered to a very significant extent by energy from renewable sources, including energy from renewable sources produced on-site or nearby. Passive House / Leadership in Energy and Environmental Design (LEED) Platinum certifications meet this definition.
<b>NET-ZERO ENERGY (NZE)</b>	Both the Greenhouse Gas Reduction Fund (GGRF) and an in-progress definition by the US Department of Energy (DOE) define a Net-Zero Emissions building (also called a Zero Emissions Building) as one that has been verified to be: Highly energy efficient, free of on-site emissions from energy use, and powered solely from renewable energy sources. While the exact details of what each criteria mean can vary widely, it is generally understood to be a building constructed or retrofitted to one of the highest contemporary energy codes with no on-site fossil fuel use that generates sufficient on-site renewable energy to offset any off-site fossil fuel use. The practicality of what it means to fully offset any indirect emissions is currently under significant debate. New construction buildings funded by GGRF must be NZE buildings, which will be further defined by the DOE process.
<b>ZERO OVER TIME (ZOT)</b>	A zero-over-time plan is a tool to “right-time” building improvements such that the building reaches the status of being a Net-Zero Emissions building. The project scope may include partial electrification and/or solar PV. Note that to qualify for GGRF funding, a building retrofit must be ZOT or above. ZOT has been given an interim definition for the GGRF as “a credible plan to move the building from its current state to a future state of being a Net-Zero Emissions building (generally within 20 years or less).”

---

---

## HOUSING TERMS

---

<b>AFFORDABLE HOUSING</b>	Affordable housing is generally defined as housing for which the occupant is paying no more than 30% of their gross income for housing costs, including utilities.
<b>AREA MEDIAN INCOME (AMI)</b>	Area median income is defined as the midpoint of a specific area's income distribution and is calculated on an annual basis by HUD. This metric is important because many of HUD's housing programs are based on the value for a Metropolitan Statistical Area, impacting renter eligibility determinations among other uses.
<b>COMMUNITY LENDERS</b>	Public, quasi-public, not-for-profit, or nonprofit entities that provide Financial Assistance to Qualified Projects at the state, local, territorial, or Tribal level or in the District of Columbia, including community and low-income-focused lenders and capital providers
<b>LOW-INCOME AND DISADVANTAGED COMMUNITIES (LIDAC)</b>	<p>The U.S. Environmental Protection Agency (EPA) Greenhouse Gas Reduction Fund (GGRF), a key funding source for MCCB, defines low-income and disadvantaged communities as encompassing the following four categories:</p> <ol style="list-style-type: none"><li>CEJST identified disadvantaged communities;</li><li>Communities identified as disadvantaged by the EJScreen mapping tool;</li><li>Geographically dispersed low-income households (80% AMI and 200% of the Federal Poverty Level for metropolitan areas; 80% AMI and 80% Statewide non-metropolitan area AMI and 200% of the Federal Poverty Level for non-metropolitan areas);</li><li>Properties providing affordable housing (rental housing with rents not exceeding 30% to 80% AMI for at least half of the residential units).<sup>2</sup></li></ol>
<b>LOW- AND MODERATE-INCOME (LMI) RESIDENTS</b>	Massachusetts law generally defines "low-income households" as those with a gross income at or below 80% of area median income (AMI) and "moderate-income households" as those with a gross income at or below 135% of AMI, both as most recently determined by the United States Department of Housing and Urban Development (HUD). This encompasses at least 37% of all Massachusetts residents (or at least 2.7 million people). <sup>3</sup>
<b>LOW INCOME HOUSING TAX CREDIT (LIHTC)</b>	Many for-profit- and nonprofit-developed rental properties use these federal income tax credits. Large corporations, institutions, pension funds, and insurance companies invest in the housing as a method to gain the tax credits and reduce their income tax obligations. These apartments serve residents below 60% of AMI and must accept Section 8 vouchers.

# CONTENTS

---

<b>A</b>	<u>MCCB WILL HELP TO ADVANCE THE COMMONWEALTH'S 2050 CLIMATE GOALS</u>	<b>8</b>
<b>B</b>	<u>MCCB WILL COLLABORATE WITH CLIMATE AND HOUSING PARTNERS ACROSS STATE GOVERNMENT</u>	<b>10</b>
<b>C</b>	<u>MCCB WILL FOCUS LENDING TO SUPPORT ENVIRONMENTAL JUSTICE AND EQUITY</u>	<b>12</b>
<b>D</b>	<u>MCCB'S FINANCIAL PRODUCTS NEAR AND LONG TERM</u>	<b>12</b>
<b>E</b>	<u>CAPITAL REQUIREMENTS</u>	<b>13</b>
<b>F</b>	<u>CAPITAL SOURCES</u>	<b>13</b>
<b>G</b>	<u>MEASURING MCCB'S IMPACT</u>	<b>16</b>
<b>H</b>	<u>ANTICIPATED STAFFING</u>	<b>17</b>
<b>I</b>	<u>PHASED OPERATIONAL PLAN</u>	<b>18</b>
<b>J</b>	<u>ENDNOTES</u>	<b>20</b>

---

# A

## MCCB WILL HELP TO ADVANCE THE COMMONWEALTH'S 2050 CLIMATE GOALS



**Energy cost savings, particularly in high electricity cost markets, are not sufficient by themselves to finance the costs of deep energy retrofits.** MCCB can play a key role in advancing the Commonwealth's 2050 climate goals by acting as the lead aggregator, developer, originator, and distribution channel for a full range of financing products—including lower interest debt, additional soft debt / subsidy, clean energy incentives, and additional LIHTC / Clean Energy Tax Credit equity—that will be needed to cover the incremental cost of decarbonization for the Commonwealth's building stock in order to achieve NZE and ZOT buildings.

MCCB will have an initial core focus on ZOT and NZE buildings, specifically in affordable rental and homeownership units.

### PRIMARY IMPACT CRITERIA

- Maximizing total GHG emissions reduction in the residential building sector in support of the requirement to achieve Net Zero for Massachusetts by 2050.
- Delivery of decarbonization benefits to LIDACs consistent with the Commonwealth's EJ policy and federal Justice40 requirements. Lending products will be designed to meet the needs of LMI residents, EJ neighborhoods, Gateway Cities, and LIDACs.

### DECARBONIZATION FOCUS AREAS

- Preservation and retrofit of regulated affordable rental housing
- Retrofits of LMI owner-occupied homeownership units
- New construction of regulated affordable rental housing
- Solar Photovoltaic Technologies for regulated affordable rental housing



A focus on preservation and new construction of affordable rental housing and mortgage lending to LMI households will allow MCCB to move quickly by tapping into MassHousing strategic capabilities and pipeline. Between MassHousing's own loan portfolio and the developments the Agency oversees for HUD, MassHousing has an active presence in 41% of all subsidized rental housing in Massachusetts. The Agency also has extensive experience financing deep energy retrofits and has provided \$408 million in financing for the creation of 1,600 new rental homes that meet Passive House standards.

MassHousing is also a trusted partner for its homeownership borrowers. The Agency currently has a portfolio of more than 23,000 home loans that are actively serviced in-house, with an outstanding principal balance of \$3.9 billion. This includes both first mortgages and subordinate loans. Roughly 60% of current borrowers have incomes under 80% of AMI. A substantial share of MassHousing's borrowers live in EJ communities.

Once established, MCCB may be able to expand its rental efforts to naturally occurring affordable housing, potentially in partnership with MassDevelopment and/or other lenders in Massachusetts. MCCB may also consider expanding to other building-adjacent sectors. This includes market-rate housing, non-residential buildings, clean transportation, and the industrial sector. At that time, entry into each of these additional sectors will require its own gap analysis to understand the market opportunities and ability of MCCB to provide financing solutions that are additive to what is already available in the market.

# B

## MCCB WILL COLLABORATE WITH CLIMATE AND HOUSING PARTNERS ACROSS STATE GOVERNMENT

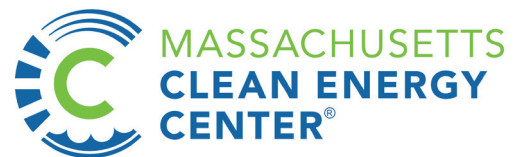


In October 2023, MCCB, Massachusetts Clean Energy Center (MassCEC), and MassDevelopment have entered into a Memorandum of Understanding in which the parties commit to work together to support the development and success of MCCB and agree to cooperate on identifying funding opportunities, collaborate on grant applications, and coordinate efforts to promote and advance MCCB programs.

### CORE PARTNERS



MassDevelopment is a quasi-public economic development finance agency and land bank committed to achieving three goals: stimulating business, driving economic growth, and helping communities thrive across Massachusetts.



A state economic development agency dedicated to accelerating the growth of the clean energy sector across the Commonwealth to spur job creation, deliver statewide environmental benefits and secure long-term economic growth for the people of Massachusetts.

## STRATEGIC PARTNERS



### MASSACHUSETTS EXECUTIVE OFFICE OF **HOUSING AND LIVABLE COMMUNITIES (HLC)**

HLC is leading the development of a statewide plan and targets for decarbonization of regulated affordable housing, in which MCCB is participating alongside other agencies.

### MASSACHUSETTS DEPARTMENT OF **ENERGY RESOURCES (DOER)**

DOER leads the state's work on energy efficiency planning, including the oversight of MassSave and Municipal Light Plant (MLP) initiatives. DOER is the lead administrator for the HER and HEAR federal rebates and leads a grant competition for deep energy retrofits of affordable housing (the "Low- and Moderate-Income Decarbonization grant program"). MCCB is currently coordinating with DOER on several of these programs and initiatives

### MASSACHUSETTS EXECUTIVE OFFICE OF **ENERGY AND ENVIRONMENTAL AFFAIRS (EEA)**

EEA leads the development of policy frameworks and goals for economy-wide decarbonization, including emissions reduction targets in the Clean Energy and Climate Plan. EEA is also leading the development of a Building Decarbonization Clearinghouse to centralize the management and deployment of building decarbonization resources across the Commonwealth.

### MASSACHUSETTS DEPARTMENT OF **ENVIRONMENTAL PROTECTION (DEP)**

DEP is leading the state's work to establish a clean heat standard. DEP's Commonwealth Climate Mitigation Trust provided the initial \$50 million in seed funding for MCCB.



### **MASSACHUSETTS HOUSING PARTNERSHIP (MHP):**

MHP provides permanent financing for affordable and mixed-income rental developments as well as mortgage loans for LMI homebuyers across Massachusetts through products funded predominantly by commercial banks and GSEs. MHP also administers several climate-focused lending programs including Climate Ready Housing, a joint program of MHP and MassHousing.

### **INITIAL COLLABORATIVE PROGRAMS ARE EXPECTED TO INCLUDE THE FOLLOWING:**

- Climate Ready Housing (in partnership with MHP)
- Low- and Moderate-Income Housing Decarbonization Grant Program (in partnership with DOER)
- Home Energy Rebates (in partnership with DOER)
- Solar for All (in partnership with MassCEC and DOER)
- Loan Programs Office (LPO) (in partnership with MassDevelopment and MassCEC)
- Powering Affordable Clean Energy (PACE) (in partnership with MassDevelopment)
- Decarbonization Clearinghouse (in partnership with EEA)



## MCCB WILL FOCUS LENDING TO SUPPORT ENVIRONMENTAL JUSTICE AND EQUITY

As the first Green Bank in the nation to launch with a focus on affordable housing, MCCB is organized to promote clean energy solutions for LMI households by leveraging federal, state, and private funds. Consistent with Massachusetts Environmental Justice Policy<sup>4</sup> and the Biden-Harris Administration's Justice40 Initiative, MCCB will help deliver decarbonization and clean energy benefits to LMI residents, EJ communities and Gateway Cities disproportionately burdened by pollution and poor health. This includes middle-income households earning between 80% and 135% of AMI who do not qualify for housing and/or energy subsidy programs but nevertheless struggle with the high cost of housing and utilities in Massachusetts.

MCCB will also focus on delivering benefits to LIDACs as defined in the EPA's GGRF ([see Section F](#)). For the National Clean Investment Fund (NCIF) program, a component of GGRF, 40% of grant funds must provide financial assistance in LIDAC communities. For Clean Communities Investment Accelerator (CCIA) projects, 100% of grant funds must provide financial assistance in LIDAC communities.



## MCCB'S FINANCIAL PRODUCTS NEAR AND LONG TERM

**MCCB will have a core focus during the first three to five years on providing financing to put affordable rental and homeownership units on a path toward NZE.** MCCB's initial priority loan products will focus on NZE for new construction and a mix of NZE and ZOT for preservation buildings and adaptive reuse as well as retrofits of homeownership units. For rental buildings, these products will be available for mixed-income and mixed-use projects as well.

**Layering low-cost, long-term concessionary debt into projects alongside other sources can help to reduce the need for grant subsidies and stretch scarce grant dollars further.** MCCB can take advantage of its ability to use GGRF and other MCCB resources noted below to make higher loan-to-value / lower interest rate loans for a NZE or ZOT project.

**For rental lending,** a majority of MCCB activity in the first three to five years is expected to be delivered on a retail basis through MassHousing origination and underwriting channels. These products will be even more effective with the availability of additional volume cap for tax-exempt Private Activity Bonds that will unlock additional 4% LIHTC equity for decarbonization projects. MassHousing will also provide asset management services for these MCCB loans.

**For homeownership lending,** the ability to bridge state and federal rebates, incentives and tax credits will allow MCCB to provide LMI homeowners – including but not limited to existing MassHousing borrowers — with a comprehensive financing package for home decarbonization. The initial homeownership loan product will be delivered on a wholesale basis through a lender network with loan servicing provided by MassHousing.

# E

## CAPITAL REQUIREMENTS

The incremental cost of a NZE or Near-NZE rental rehab is quite high compared to a ZOT scope. A ZOT scope is likely \$20,000-\$50,000 per unit, while an NZE or Near-NZE rehab cost can range from \$70,000-\$110,000 per unit, with the bulk of cases for Near-NZE toward the lower end of that range. The incremental cost for an NZE or Near-NZE homeownership rehab is projected to be \$90,000 per unit with lower costs for a ZOT scope (estimated at \$25,000-\$70,000).

When placed against the amount of incremental financing available and potential prevailing wage requirements, there is still a large gap that needs to be filled by new subsidy, especially for NZE rehabs. To better understand the cost of ZOT and NZE buildings and the scale of capital required on a portfolio basis, the consultant team created a pro forma model and developed a set of capital deployment scenarios for both rental and 1-4 family mortgage lending.

**Based on this analysis, MCCB will require approximately \$355 million in low-cost, concessionary capital, including \$60 million in subsidy/soft debt, over the next three to five years to support decarbonization of approximately 5,000 rental units and 1,300 1-4 family homes.** For reference, this would represent approximately 20% of MassHousing's projected rental pipeline and 10% of its existing 1-4 family mortgage portfolio.

# F

## CAPITAL SOURCES

Other green banks and allied community lenders that engage in climate lending have traditionally been seeded by a mix of one-time and recurring revenue sources allocated by the public sector.

### ONE-TIME SOURCES

**Several green banks have been funded by one-time infusions of capital, which limits their growth in the long run.** As helpful as these fixed sum investments have been in establishing these institutions, green banks launched with one-time inflows in the \$10-50 million range have been limited by their asset base as they establish their programs. As a result, they have either had to offer lending at or very close to market rates or have had to strictly limit their lending to maintain sufficient net asset / equity coverage.

### RECURRING REVENUE STREAMS FROM ENERGY SOURCES

**Recurring revenue streams support continued institutional growth, innovation, and the ability to achieve deeper environmental and social impacts.** The Connecticut Green Bank and the Montgomery County Green Bank (in Maryland) have both been the recipient of recurring revenue sources. This recurring revenue has helped each organization rapidly expand and serve its market. Connecticut receives an appropriation of ratepayer funds (that has varied in size over its 13-year history). The state has been able to use this revenue base to take risks that have significantly advanced climate finance in the state. Montgomery County's revenue stream is only two years old, but the percentage of an energy tax dedicated to the organization by a local law has enabled a dramatic increase in the size and ambition of the organization's lending activity.

## NEAR-TERM FEDERAL FUNDING OPPORTUNITIES

There are significant federal revenue streams available in the near and mid-term:

**\$27B**

### **GREENHOUSE GAS REDUCTION FUND:**

The GGRF is a \$27 billion program run by the EPA consisting of three grant programs that are critical to MCCB's success.<sup>5</sup>

### **\$14B NATIONAL CLEAN INVESTMENT FUND (NCIF)**

The GGRF National Clean Investment Fund (NCIF) competition will award \$14B in grants to 2-3 national nonprofit financing entities to, "create national clean financing institutions capable of partnering with the private sector to provide accessible, affordable financing for tens of thousands of clean technology projects nationwide."<sup>6</sup> Awardees will provide capital to community lenders and other similar institutions so that they, in turn, can provide financing to qualified projects in the communities that they serve. MCCB developed a framework to prioritize the types of available GGRF capital it will be seeking from NCIF coalitions. There are several promising NCIF coalitions that, if successful, MCCB could work with closely to advance its goals. Those that are focused on working with Housing Finance Agencies will be the most appropriate initial partners for MCCB.

### **\$6B CLEAN COMMUNITIES INVESTMENT ACCELERATOR (CCIA)**

The GGRF CCIA competition will award \$6 billion in grants to 2-7 hub nonprofits that will, in turn, provide funding and technical assistance to specific industry networks of public, quasi-public, and non-profit community-focused lenders. The purpose of the CCIA is to support the goal that every community in the country has access to the capital they need to deploy clean technology projects in their homes, small businesses, schools, and community institutions. MCCB should apply for the maximum CCIA capitalization and technical assistance awards (\$10 million) and raise awareness among community lenders in Massachusetts about the CCIA coalition awardees and their respective sub-award allocation processes. If permissible under final EPA rules, MCCB may be able to coordinate a single application under CCIA for various community lenders who will receive capitalization funding.

### **\$7B SOLAR FOR ALL**

As noted above, MCCB is a named program partner in the Commonwealth's \$250 million application to the Solar for All competition. The application in Massachusetts was led by DOER and MassCEC, who will be critical partners in the deployment of these funds, if awarded. The application included a \$40 million Solar on Affordable Housing Initiative to be administered by MCCB.

# \$100M+

min. loan size

## DEPARTMENT OF ENERGY LOAN PROGRAM OFFICE (DOE-LPO) FINANCING

MCCB is working with MassDevelopment and MassCEC to explore opportunities jointly for federal DOE-LPO financing, as all three entities are designated State Energy Financing Institutions. The DOE-LPO works to fill gaps in commercial energy project deployment by serving as a bridge to bankability for large scale (\$100 million and up) projects implementing innovative and high-impact energy technologies, providing them with access to needed loans and loan guarantees when private lenders cannot or will not.

# \$37B

amounts vary on case-by-case basis<sup>7</sup>

## IRA ENHANCED TAX CREDITS

The Inflation Reduction Act tax credits will complement MCCB priority projects. In some cases, MCCB may be able to provide financial benefits to the project by bridging these tax credits, including Sec 45L Credit for Energy Efficiency Homes; Sec 25D Residential Clean Energy Credit (for Solar / Storage / Geothermal); Sec 25C (residential efficiency); and Sec 48/48E Commercial Clean Electricity Investment Credit (for Solar / Solar + Storage).

## FUNDING OPPORTUNITIES AS MCCB MATURES

**Private Investment:** The options for private investment will have the potential to expand significantly as the GGRF grantees establish their programming. Most NCIF awardees plan to offer either product-based channels or more flexible capital facilities to climate lending institutions that will potentially leverage private capital. However, MCCB may also choose to seek private capital directly at some point in the future. Options include:

- **Capital Markets:** Over time, MCCB will be able to build on MassHousing's significant track record of leveraging federal risk-sharing and insurance programs to access capital bond markets. This benefit will be best passed on to MCCB in the form of standardized transactions such as rental financing or homeownership mortgages. MCCB may be able to issue sustainable bonds backed by senior loans structured with MCCB funding, with the possibility of doing so under an NZE or Passive House specific label. This may provide a modest benefit in the yield that could be passed on to projects.
- **Private Placement Transactions:** MCCB may also generate assets in the form of more bespoke loans, especially as it moves into the small project finance space. Accessing private capital for these types of projects will require more fine-grained efforts in the form of private placement debt with one or more investors. Investors may include large financial institutions or impact investors seeking exposure to climate investments that benefit federally-designated LIDACs.



# MEASURING MCCB'S IMPACT

MCCB will monitor its environmental, financial, and social impact at the project and portfolio level. MCCB's initial focus on quantifiable impact metrics will be on measuring projected and actual GHG reduction and energy savings.



## BENCHMARKING

**MCCB is considering requiring all funded projects to benchmark using pre-qualified providers and to submit such data to MCCB on an annual basis.** Boston's Building Emissions Reduction and Disclosure Ordinance (BERDO) already requires large existing buildings to report their key building characteristics and energy and water usage in Energy Star Portfolio Manager. Benchmarking is a useful methodology for building owners and managers to gain insight into a building's energy use to assess opportunities for building performance improvement and to quantify and verify energy savings. While there are barriers to importing data from some utilities directly into this platform, this can be an area of borrower technical assistance provided by MCCB as part of its asset management.



## POST-IMPLEMENTATION PERFORMANCE TRACKING AND ACTUAL METRICS

**MCCB is considering requiring all MCCB-funded projects to have a plan to track the projected energy impact after implementation.** For example, MCCB could provide borrowers with access to a building software platform that provides detailed monthly performance data for the building's energy savings, based on building utility bills. In order to minimize the number of software platforms used, MCCB is investigating using software that enables borrowers to meet both the benchmarking requirement, as summarized above and report via EPA's Energy Star Portfolio Manager, and track energy usage and savings.



## SETTING THE BAR FOR DATA AND MEASUREMENT

**MCCB will strive to measure both projected and actual energy / GHG reduction data for all projects that it finances. Publishing the actual energy data performance would put MCCB at the forefront of Green Banks nationally, for whom this type of performance-data sharing at the building and portfolio-level has historically been very limited.** This cannot be accomplished solely through requiring energy consumption benchmarking. As such, MCCB will investigate building software platforms that enable the tracking of energy usage and financial savings from decarbonization projects, support energy benchmarking law compliance, and calculate realization rates for energy, costs, and GHGs. With such a software platform, MCCB may also monitor the relative performance of its portfolio of MCCB-funded projects.





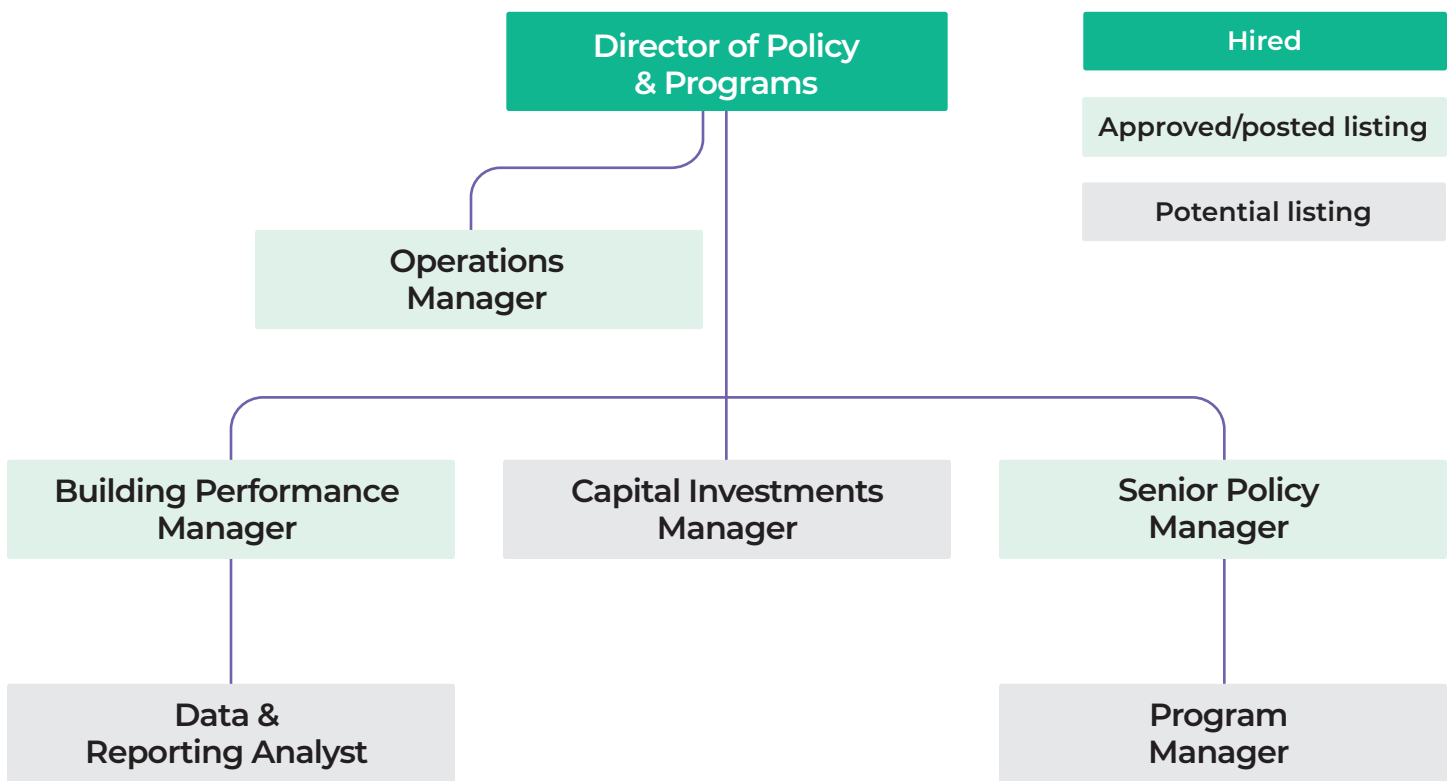
# ANTICIPATED STAFFING

MCCB will benefit substantially from existing MassHousing staff capacity in the following areas:

- **Operations:** Finance and Administration, Legal, Human Resources, Information Technology, Marketing and Communications, and Compliance.
- **Rental Programs:** Underwriting, Origination, Technical Services, and Portfolio Management.
- **Homeownership Programs:** Lender Partner Management, Financial Markets and Loan Pricing, Loan Servicing, and Mortgage Insurance Fund.

In addition to the Director of Policies and Programs, MCCB will need to hire several dedicated positions to support policy, programmatic, and technical work across business lines.

## FUTURE ORGANIZATIONAL STRUCTURE



The costs for dedicated MCCB staff will be included in the MCCB operating budget. In addition, MassHousing will charge MCCB an annual “hosting fee” to cover a pro-rata share of services and indirect expenses. While the initial \$50 million in seed funding can support MCCB operating costs over the next three to five years (as well as limited lending activities), further funds will be required to sustain MCCB operations over the long term. Sources of future funding may include income from lending activities, program administrative fees and/or recurring revenues.

## PHASE 0

### *Start-Up*

JUN 2023 - FEB 2024

- Announced MCCB and MassHousing as institutional home.
- Established relationships with NCIF and CCIA applicants with support from external consultants.
- Established MCCB's presence and foundational documents for external visibility.
- Hired first dedicated MCCB staff member (Director of Policies & Programs).
- Conducted research to inform the Operating Plan.
- Completed MCCB Operating Plan.
- Developed relationships with key partners and developed initial strategies for coordinated policy and program delivery with other state agencies.
- Developed initial homeownership loan product.
- Developed initial pipeline of rental developments for GGRF.

## PHASE 1

### *Launch*

MAR 2024 - DEC 2024

- Announce and launch homeownership loan product.
- Hire additional staff ([see Section H](#)).
- Secure GGRF commitments from national consortiums that receive EPA awards to support rental development (both preservation and new construction projects), with timing dependent on GGRF awards.
- Establish formal partnerships and complete contract agreements with other state agencies for administration of decarbonization loan funds for affordable housing.
- Establish MCCB energy benchmarking and impact measurement plans/protocols.

## PHASE 2

# *Growth*

JAN 2025 – DEC 2027

- Continue to secure and invest GGRF funds in rental preservation and new construction.
- Pursue additional GGRF funds for homeownership product.
- Continue to scale up homeownership and rental lending through MassHousing channels.
- Establish mechanisms for delivering decarbonization financing through other partners and channels (e.g. MassDevelopment, MassCEC, MHP).
- Develop and implement plan to secure recurring revenues for MCCB.
- Explore opportunities for additional dedicated private capital to support enhanced MCCB lending activities.
- Review MCCB's operating plan and assess needs and opportunities for next phase of growth.

## PHASE 3

# *Stabilized Funding*

JAN 2028 – ONWARD

- Commission third-party evaluation of MCCB impacts over first five years.
- Revisit and refine energy benchmarking and impact measurement protocols.
- Assess market needs and pursue opportunities for non-residential lending through MCCB.
- Use recurring revenue to collateralize new MCCB loan products based on market needs/gaps.
- Update MCCB's mission and purpose statements, if needed.



# ENDNOTES

- 1 Climate and Economic Justice Screening Tool, < <https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>>
- 2 EPA NCIF NOFO, p 9.
- 3 This figure is all people in households under 120% AMI (moderate-income as defined by HUD), per Low to Moderate Income Population by Tract <<https://hudgis-hud.opendata.arcgis.com/datasets/HUD::lowto-moderate-income-population-by-tract/about>>
- 4 Mass.gov, “Environmental Justice Policy”, <<https://www.mass.gov/info-details/environmental-justice-policy>>
- 5 For more information about the GGRF, visit the EPA website, <<https://www.epa.gov/greenhouse-gas-reduction-fund>>
- 6 EPA NCIF NOFO, p.4
- 7 Economic Impacts of the Climate Provisions of the Inflation Reduction Act: Bistline et al, Brookings Papers on Economic Activity, March 2023