



# Building Decarbonization Policies in the Midwest

*Progress Report*



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## Introduction

Previous research<sup>1</sup> published by the Midwest Energy Efficiency Alliance (MEEA) in 2022 highlighted municipal-level building decarbonization policies throughout the Midwest, serving as a consolidated resource of examples and ideas for other Midwestern localities looking to adopt similar policies. The report identified one municipal climate action plan in each of MEEA's thirteen states and discussed common policy<sup>2</sup> issues and unique approaches in each.

Climate action planning, while essential, is only the first step toward climate change mitigation. Implementation is a crucial hurdle in successfully realizing climate goals, and funding capacity, public opinion and other obstacles often stand in the way of progress. This report provides updates on the municipalities that have changed or made progress toward their climate action goals since the 2022 report, highlighting creative approaches, best practices and barriers to implementation. This paper will serve as a resource of ideas and best practices for other Midwestern municipalities seeking to adopt and implement building decarbonization and energy efficiency goals.

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<sup>1</sup> For information on the Midwest's building stock and energy landscape, review [Building Decarbonization Policies in the Midwest](#) (2022).

<sup>2</sup> For this research, the terms "policy" and "policies" include building energy codes.

## Methodology

The 2022 report identified five primary policy areas that were common among climate action plans throughout the Midwest region: new buildings, existing buildings, distributed energy resources, implementation and financing, and equity. Nine of the thirteen cities reviewed in the original report have made significant progress toward reaching their climate goals within the past year. MEEA reviewed the steps these cities took in the past year to advance within the five key policy areas. In addition to advancing existing climate action goals, several cities debuted new or revised plans after extensive community engagement and planning processes. This report will summarize each city's progress, highlighting successes and challenges in the advancement and implementation processes.

The cities reviewed in this report are:

- Ann Arbor, Michigan
- Chicago, Illinois
- Cleveland, Ohio
- Dubuque, Iowa
- Indianapolis, Indiana
- Kansas City, Kansas
- Lincoln, Nebraska
- Milwaukee, Wisconsin
- Minneapolis, Minnesota
- Sioux Falls, South Dakota

## Ann Arbor, Michigan *New & Existing Buildings*

**Benchmarking:** As of June 2023, the Ann Arbor Energy and Water Benchmarking Ordinance requires all buildings larger than 50,000 square feet to submit a benchmarking report to the city each year, in addition to annually tracking energy use through ENERGY STAR® Portfolio Manager®. Before June 1, 2023, only buildings greater than 100,000 square feet were required to submit benchmarking reports directly to the city. Furthermore, Ann Arbor adopted the Home Energy Rating Disclosure Ordinance in early September 2023, requiring that building owners have a Home Energy Score assessment conducted for a property before it is listed for sale and for the score to be provided in the listing.

**Retrofit and Retro-commissioning (RCx):** Ann Arbor provided \$300,000 in grants to housing providers to make energy efficiency upgrades in lower-income homes. According to the A2Zero Year 3 Annual Report, the city's Aging in Place Efficiently (AIP) program completed energy efficiency and weatherization retrofits in the homes of 17 lower-income seniors, ultimately reducing energy burdens by saving \$45,000 in energy

costs and reducing carbon emissions by 113 metric tons. Additionally, Ann Arbor is currently developing a Green Rental Efficiency Initiative that would add energy efficiency requirements into the existing rental licensing process.

## *Distributed Energy Resources*

Ann Arbor has moved into the adoption stage for a Sustainable Energy Utility (SEU), a 100% renewable-powered, reliable, local, shared and publicly owned municipal energy utility. According to the A2Zero Year 3 report, the city is now analyzing the financial viability of the SEU and has submitted a grant application to the U.S. Department of Energy to secure the creation of the SEU, with decisions due in summer 2024.

Ann Arbor has also made progress toward implementing its goal of electrifying vehicles and appliances. According to the A2Zero Year 3 Report, the city's light fleet, including some pickup trucks and vans, reached 20% electric, and the city received a \$54,000 grant to install the city's first curbside electric vehicle chargers. Additionally, the city piloted its Home Energy Advisor service to assist residents with home electrification. Ann Arbor is also making progress towards its goal of powering the electric grid with 100% renewable energy, having installed 4 MW of rooftop solar (including 540 residential installations) and secured \$2.5 million in federal funding for solar and battery installation on city facilities. The city is also installing 1 MW of solar in park facilities.

## **Chicago, Illinois**

### *New & Updated Climate Goals*

The City of Chicago adopted a finalized Climate Action Plan (CAP) in August 2022, marking the first update to the city's climate goals since the 2008 CAP. The updated CAP incorporates over ten years of new climate science and evolving community needs to create ambitious, equitable and relevant climate goals. In order to reflect the needs and goals of community members, the city incorporated feedback from public listening sessions and surveys and followed the expertise of existing frontline community organizations. The 2022 CAP establishes a goal for the city to reduce greenhouse gas (GHG) emissions by 62%, relative to 2017 levels, by 2040. The city intends to accomplish 45% of this reduction by powering Chicago with clean and renewable energy, with lateral goals of reducing household cost burdens and improving grid capacity. The plan outlines five pillars for reaching the overall emissions reduction target, all of which include actionable strategies relating to building decarbonization and energy efficiency. These pillars are: 1) increasing access to utility savings and renewable energy, prioritizing households, 2) building circular economies to create jobs and reduce waste, 3) delivering a robust zero-emission mobility network that connects communities and improves air quality, 4) driving equitable development of Chicago's clean energy future and 5) strengthening communities and protecting health.

## New & Existing Buildings

Chicago adopted the 2022 Chicago Energy Transformation Code, making it the first city in the Midwest to adopt **and exceed** the 2021 IECC, and has signed onto the National Building Performance Standards (BPS) Coalition. Additionally, the city has set a goal to divert 75% of construction and demolition waste from landfills and incineration by 2030 and enable building design for disassembly and reuse by 2035.

## Distributed Energy Resources

Chicago has outlined actionable strategies to obtain its emissions reduction goals through distributed energy resources. By 2030, the city will have installed 30 MW of clean renewable energy projects on city property to have 100% of city properties powered by renewable energy. By 2035, Chicago aims to electrify 30% of total existing residential buildings, 20% of existing industrial buildings, 10% of existing commercial buildings and 90% of city-owned buildings. Additionally, it will install 5 MW of co-owned community solar and increase Chicago-based community renewables to 20 MW by 2025.

## Financing & Incentives

**Federal Funding:** To accomplish Chicago's renewable and retrofitting goals, the 2022 CAP outlines a proposal to utilize Inflation Reduction Act (IRA) funding provisions for energy-saving improvements in residential buildings. These provisions include the HOME Rebate and High-Efficiency Electric Home Rebate, which provide an additional \$50-80 million to city households, and the Energy Efficiency Home Improvement Credit, which supplies up to \$20 million in tax credits. Additionally, the city plans to use the IRS Energy Efficient Commercial Buildings Deduction to retrofit 20% of commercial buildings by 2035 and make upgrades needed to comply with the city's anticipated BPS.

## Equity

Each pillar of the Chicago 2022 CAP includes "Equity, Resiliency, and Environmental Justice Considerations." The CAP aims to achieve a 25% increase in community renewables subscriptions by low-income and environmental justice residents by 2030. On the energy efficiency front, the city plans to work with frontline community leaders to prioritize buildings for energy efficiency retrofits and focus funding on low-income households. To track equity progress, Chicago plans to begin publicly reporting equity and justice transition metrics, such as energy burden and heat vulnerability by community area, between 2023 and 2025.

## Cleveland, Ohio

### *Distributed Energy Resources*

Cleveland, Ohio has continued implementing strategies to achieve the city's 2018 goal of having 25% of Cleveland Public Power's electric supply come from renewable sources by 2025 – the city is currently at 21%. Recent progress comes from the launch of their Community Choice Electricity Aggregation program in August 2023.

### *Equity*

As part of its goals to reduce the residential energy burden to 3.3% or less and reach a 25% renewable-powered electric supply, the city introduced its Community Choice Aggregation program to support affordable clean energy for residents and small businesses. More specifically, the city is now able to offer a default one-year fixed rate of 6.3 cents/kWh for its municipal electricity supply, which residents can choose over the default electricity supplier that the utility company uses. While this program is optional for Cleveland residents, the lowered rate would save the average residential electricity account approximately **\$200 over the next year**, compared to The Illuminating Company's default electricity supply rates of 9.8 cents/kWh<sup>3</sup>.

## Indianapolis, Indiana

### *New & Existing Buildings*

**Benchmarking:** Indianapolis, Indiana has plans to make the data from the Thriving Buildings Benchmarking Program<sup>4</sup> available to the public by 2026. Starting in 2024, the threshold for buildings required to benchmark via Indianapolis' Energy and Water Benchmarking Ordinance lowered from 100,000 square feet (and larger) to 50,000 square feet (and larger). In 2025, it will include buildings 20,000 square feet (and larger).

**Net-Zero/Green Building Policy:** Indianapolis has a goal to require new commercial construction to meet EV-ready requirements for 20% of parking spaces.

**Retrofit/Retro-commission (RCx):** Indianapolis introduced its income-qualified weatherization program in partnership with AES Indiana. Under this program, residents who meet the income threshold can receive free weatherization services and consultations to reduce energy bills and increase comfort.

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<sup>3</sup> For further information on the Community Choice Aggregation Program, visit [City of Cleveland Community Choice Aggregation - Sustainable Cleveland](#)

<sup>4</sup> For more information regarding the Thriving Buildings Benchmarking Program, visit [indy.gov: Benchmarking and Transparency](#).

## Distributed Energy Resources

In 2020, The city debuted a low- and moderate-income community solar pilot as part of a goal to have 20% of energy consumed in the city come from renewable sources by 2025.

## Financing & Incentives

**State & Local Funding:** The City of Indianapolis offers a free energy audit to buildings over 100,000 square feet that voluntarily participated in the Thriving Buildings Benchmarking Program before June 1, 2023. The city also has a goal to establish low-interest loans for energy efficiency improvements in new & existing buildings.

## Equity

As mentioned above, Indianapolis has partnered with AES Indiana on an income-qualified weatherization program and has set goals to expand energy efficiency workforce training for the previously incarcerated re-entry population.

## Milwaukee, WI

### New & Updated Climate Goals

The City of Milwaukee adopted its Climate & Equity Plan in June 2023, building upon the previous goals of the 2013 ReFresh Milwaukee Sustainability Plan, to incorporate racial equity as a foundational principle. The Climate & Equity Plan sets a long-term goal of achieving community-wide net-zero emissions by 2050, with the interim goal of a 45% reduction by 2030, relative to 2018 levels. The plan outlines “10 Big Ideas” to reduce GHG emissions and improve racial equity, with five ideas directly relating to building decarbonization and energy efficiency: Healthy Home Energy Upgrades, New Net-Zero Energy Homes, Commercial Building Energy Benchmarking and Building Performance Standards, Greening the Electric Grid and Electrifying Transportation<sup>5</sup>.

### New & Existing Buildings

Milwaukee has set goals to build new, net-zero energy homes utilizing off-site construction to scale up housing development, reduce costs and create year-round employment. To accomplish these goals, Milwaukee has outlined a three-step strategy: identify a developer to build model net-zero energy homes, identify creative financing sources and form a manufacturing partnership. Additionally, Milwaukee has signed on to the National BPS Coalition.

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<sup>5</sup> While the Milwaukee Climate & Equity Plan focuses on electrifying transportation, this does not include goals to require new buildings to be EV-ready.



## *Distributed Energy Resources*

The City of Milwaukee is expanding solar energy with the Milwaukee Shines Solar Program. This program reduces permitting and soft costs of solar, provides affordable financing to qualified homeowners and supports group purchasing through bulk buying.

## *Financing & Incentives*

**Federal Funding:** Milwaukee's City Council has allocated \$2 million in American Rescue Plan Act (ARPA) funding to audit and complete energy efficiency upgrades in homes being remediated for lead hazards, \$3 million to develop the workforce needed to complete large-scale home improvements and \$15 million to renovate 150 city-owned homes for lead safety and energy efficiency in preparation for resale.

## *Equity*

The Green Jobs Accelerator section of the 2023 Climate and Equity Plan sets a goal of establishing green jobs that pay an entry-level minimum of \$40,000 per year and having at least 40% of those green jobs held by people of color. In partnership with Milwaukee Public Schools, the city plans to utilize federal funding to scale up workforce training to meet workforce gaps – specifically, addressing unemployment in the Black community. The city remains focused on retrofitting, retro-commissioning and new affordable housing for underserved communities facing high energy burdens.

## **Minneapolis, MN**

### *New & Updated Climate Goals*

The City of Minneapolis debuted its new Climate Equity Plan in July 2023. In contrast to the city's original 2013 Climate Action Plan, the Equity Plan was formulated through equitable community engagement and prioritizes environmental justice throughout. This included intentional outreach to diverse community groups, centering BIPOC voices and including community experts as leaders throughout the development of the plan. The Equity Plan sets a long-term goal of net-zero community-wide emissions by 2050, as well as several building-specific decarbonization goals. These include reducing total 75% of GHG emissions from commercial, multifamily and industrial buildings by 2030, ensuring all new city buildings are net-zero by 2030, reducing housing energy burden to no more than six percent and transitioning to all-electric homes.

### *New & Existing Buildings*

Minneapolis has signed on to the National BPS Coalition.

## Financing & Incentives

**Federal Funding:** The Minneapolis Climate Equity Plan outlines a work plan for the first twelve months following its adoption in July 2023. Within this work plan is a strategy to leverage \$1.4 million in ARPA funds to develop the workforce needed to accomplish the goals of the Equity Plan on a larger scale.

**State & Local Funding:** Minneapolis matches a portion of funding for green property improvements through the Green Cost Share Program (GCSP) - the amount of funding given is relative to the property category (e.g., Green Zones<sup>6</sup>). The city's new equity plan outlines goals to provide access to no-cost energy audits for owners of buildings under 50 square feet and to expand the GCSP to include opportunities for industrial emission reduction. Further, the city's energy efficiency implementation goals include collaborating with utilities to maximize the number of households that receive free energy upgrades from current programs and to offer energy rebates at time-of-sale.

## Equity

The City of Minneapolis prioritizes funding and programs for Green Zones, the city's established environmental justice neighborhoods. Minneapolis' Great Streets Program offers grant and loan opportunities to perform business district revitalization in "priority eligible" areas: 1) Green Zones, 2) ACP50 areas,<sup>7</sup> 3) Promise Zones,<sup>8</sup> and 4) Cultural Districts.<sup>9</sup> Properties within Great Streets' priority-eligible parcels qualify for greater incentives under the GCSP.

## Additional City Updates

The City of Dubuque, Iowa has set goals to require all new and existing municipal buildings to 1) maintain energy and resource efficiency standards by meeting an ENERGY STAR® rating of 75 or better and 2) be built to meet or exceed the standards of the International Green Construction Code. Dubuque is also looking to develop commercial and residential Property Assessed Clean Energy (PACE) programs to provide funding for energy efficiency upgrades.

Kansas City, Kansas updated its building code to the 2018 IECC from the 2009 edition, with minimal amendments.

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<sup>6</sup> Green Zones are defined by the [Minneapolis Office of Sustainability](#) as areas with high levels of environmental pollution and racial, political and economic marginalization.

<sup>7</sup> Areas of Concentrated Poverty where 50% or more of the residents are people of color.

<sup>8</sup> High-poverty communities where federal government agencies partner with local organizations and leaders to increase economic activity, address housing blight and leverage private investment through a racial equity framework.

<sup>9</sup> To be considered a cultural district, properties must be within a Metropolitan Council-defined Area of Concentrated Poverty, be rooted in communities with a significant number of BIPOC residents and/or a rich cultural and/or linguistic identity, have a goods and services corridor and be accessible by walking and public transportation.

The City of Lincoln, Nebraska has introduced an Electric Vehicle Readiness Plan that sets goals to amend local building codes to include EV-readiness strategies, including minimum charging station and parking space standards.

## Lesson Learned

### *The Importance of Stakeholder Engagement*

#### Sioux Falls

Early in 2022, the City of Sioux Falls, South Dakota released a draft Sustainability and Climate Action Plan for public comment. This plan presented an array of ambitious building decarbonization goals, including residential and commercial building electrification targets and a municipal energy benchmarking program. The final draft, before the public comment period and final review, had 71 total action items encompassing six focus areas: natural systems, community vitality and sustainable living, materials management and waste, transportation and land use, energy and buildings and a sustainable economy.

After community feedback and extensive revision, the final version of the plan was released in 2023 as the Sustainable Sioux Falls Framework. The initial comment period had revealed concerns about consumer choice, implementation costs and potential mandates stemming from the plan's enactment. Considering this feedback, the city expanded its steering committee to include affordable housing, construction and natural gas utility representatives. This steering committee held several meetings with the Sioux Falls City Council and the greater community to incorporate diverse stakeholder perspectives. The final Framework now contains 41 action items among five focus areas ("sustainable economy" was removed), significant language changes – namely, the removal of all references to "greenhouse gases" and "climate change" -- and limited electrification goals.

As MEEA emphasized in its original report, building decarbonization goals, policies and programs are not one-size-fits-all. Sioux Falls' process demonstrates the importance of bringing all relevant stakeholders to the table, even if that means committing to incremental progress as opposed to sweeping change. Additionally, a clear understanding of and sensitivity toward a community's political climate is essential to the successful adoption of building energy policies. Ultimately, Sioux Falls found a compromise that protects the interests of all residents while still committing to a climate-resilient future.

## Conclusion

Publishing a municipal climate action plan is just the beginning of a city's pathway toward climate resilience, and there are several key considerations for successful implementation. Progress is not linear and shows up in a variety of ways, whether it be updating building codes, installing solar panels or slowing down the process to allow for more robust stakeholder engagement. Climate action goals should evolve with time and must be continually reevaluated and updated to ensure that they remain relevant and aligned with the best interests of the community. Cities should take care to implement their climate goals in a way that makes sense for their community and ensures an equitable transition to decarbonization. This entails diverse and meaningful stakeholder engagement, including the most impacted residents and industries. Cities must develop solutions that represent the whole community, even if this creates tension in the adoption and implementation processes. Equity and justice are crucial considerations. From reworking climate action plans to put environmental justice first, to prioritizing green job training for marginalized communities, our Midwest communities are embodying a just transition to decarbonization.

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