BU Initiative on Cities

Advancing Climate Action in Small and Midsize Cities

Lessons from 82 Municipalities across the United States

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Across the country, cities are working to cut greenhouse gas emissions through climate mitigation actions. Small and midsize cities (SMCs) make up the majority of US cities but are underrepresented in climate policy research. Through a survey of SMCs, the **BU SCALE Study** reveals that there is no single path SMCs take to reduce emissions; rather, cities implement diverse climate action approaches according to their available resources and local constraints.

The BU Small City Actions to Lower Emissions (SCALE) Study researched how cities with populations between 25,000-300,000 residents fund and implement climate actions, with attention to how justice is negotiated in this work. The study collected data from 82 cities across the US. Participating cities took part in interviews and some completed supplement web surveys.

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SMCs implement a wide range of strategies to reduce emissions

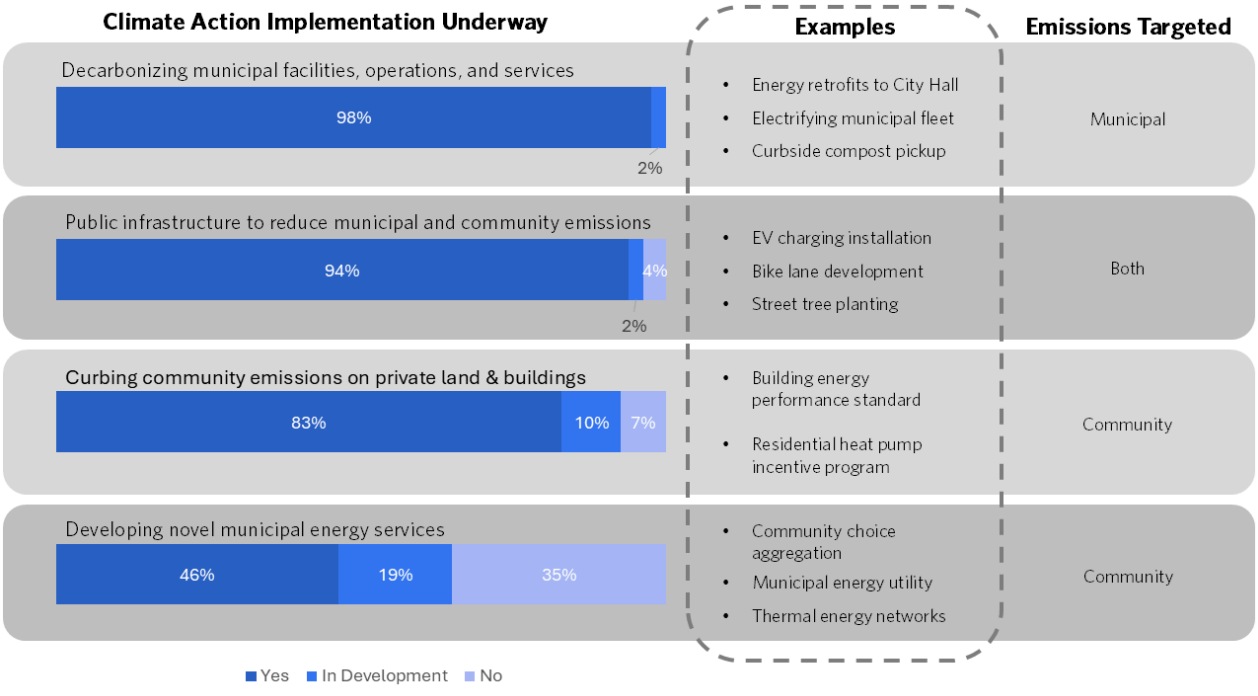
SMCs are tackling climate mitigation on multiple fronts – from reducing emissions in public buildings to mitigating emissions community-wide. Nearly every city we interviewed is working to decarbonize municipal facilities and operations (98%). However, municipal emissions alone tend to make up only a small proportion of a given city's total emissions; for this reason, many municipalities are implementing other approaches to tackle emissions from residential and commercial private property. To better understand how cities act, we grouped their strategies into four broad approaches:

1. Decarbonizing municipal facilities, operations, and services
2. Designing public infrastructure to reduce municipal and community emissions
3. Providing incentives or creating regulations to curb community emissions from private land and buildings
4. Developing novel municipal capacities to advance decarbonization

We define **climate action** as the implementation of a law, policy, or program to reduce greenhouse gas emissions from municipal operations, commercial operations, or residential activities within a municipality. Approaches to respond and adapt to climate change are also climate actions; however, they are not included in this analysis.

Figure 1 below shows that a majority of cities (98%) are currently implementing climate actions focused on municipal emissions from public buildings or municipal operations. Also common is the design and development of public infrastructure to nudge the public toward low-carbon behaviors (94%), such as the installation of EV chargers or bike lanes. A majority of cities interviewed are also implementing regulations or incentives programs to curb emissions from private land and buildings (83%). Still, we found that cities face a variety of political, regulatory, and resource constraints while attempting to reduce community emissions; these constraints are also driving a growing number of municipalities to develop novel energy service capacities, such as participation in community choice aggregation. Nearly half (46%) of the cities interviewed reported implementing a municipal energy service, while an additional 19% reported that such projects and programs were in development.

Figure 1. How SMCs are implementing climate action to reduce municipal and community emissions



Choosing the right policies to reduce emissions

Cities rarely have the luxury of pursuing every climate action at once. Sustainability practitioners must make pragmatic decisions – pursuing actions that fit their staff capacity, funding, regulatory authority, and political landscape. Our research shows that municipalities are deploying a variety of policies and programs to reduce emissions. Each approach offers unique opportunities and limitations, defined in greater detail in Table 1.

Table 1. Policy interventions and their trade-offs

Policy Intervention	Opportunity	Limitation
Energy capital projects in public facilities	Retain renewable energy credits and cost savings as well as co-benefits of facility upgrades.	High capital costs can be prohibitive.
Energy services contracts	Low up-front cost to municipality with opportunity for energy savings.	Non-energy facility needs may limit ability to engage in contracts.
Waste management contracts	Leverage city purchasing power to dictate new, low-carbon terms with service providers.	May not have opportunity to renegotiate long-term contracts.
Infrastructure design & development	Municipality has ownership of the land and can incentivize low-carbon behaviors with urban design.	New infrastructures may require new maintenance considerations.
Land use regulations and zoning	Achieves lower emissions without spending municipal capital dollars.	Requires administrative and enforcement capacities.
Incentives	Enables decarbonization by cutting costs for private property owners.	Requires capital funding and program management capacity.
Energy procurement for community members	Uses bulk purchasing to achieve favorable prices for renewable energy.	Community choice aggregation is not an enabled authority of municipalities in many states.
Municipal utility development	Municipality can create access to renewable energy regardless of whether it is offered by the investor-owned utility.	High capital and administrative costs.
Co-funding or co-administration with other municipalities	Pooling resources enables access to services that would otherwise be too costly for a single municipality.	Requires extra coordination and agreement between municipal governments.
Technical assistance	Municipality is a trusted source of information.	Residents may still lack resources to decarbonize, despite understanding the benefits.

Allowing constraints to shape policy innovations

Every city faces unique constraints shaped by local, state, and federal conditions. And yet, our research illuminated that cities across the country are innovating in response to these constraints. Below, we elaborate on cases in which cities tackled common constraints with program and policy innovations.

Table 2. Micro case studies

Limited capital funding
With so many existing obligations, a southeastern city had limited capital funds to spare on decarbonization. Still, the city wanted to lower emissions from municipal facilities. They partnered with an energy services firm on an energy performance contract, which conducted retrofits to improve energy efficiency in municipal facilities. The upgrades will yield $8 million in saved energy costs, which support the cost of the $5 million contract.

Limited administrative capacity
Federal grant applications and administration are both highly technical and time-consuming. A coalition of cities in the northwest applied jointly as a coalition, sharing the administrative burden of federal grants and amplifying their program's impact.

Limited staff interest
A sustainability manager in a small midwestern city found that colleagues were resistant to changes that would lower emissions. Despite the urgency she felt about reducing emissions and the desire to produce results, she decided to slow changes down to the pace of interpersonal relationship building – a strategy she ultimately credited with her program's success.

Mandatory contracts with corporate energy utility
A small Midwestern city had attempted to compel its energy provider to increase renewable energy for years. The city had limited bargaining power because it was required to contract with the utility provider. Lacking options, the municipality voted to create a municipal energy utility that will develop renewable energy in parallel with the corporate utility. This project will make renewable energy more accessible to residents and lower emissions.

Rapidly growing cities
A rapidly growing city is great for local economies and fiscal revenue, but it complicates emissions reduction priorities. A midsize northwestern city's energy demand is rapidly growing amid a population boom and the development of data centers. The city has begun working with its utility to advance solar power to add to load growth and create grid resilience. The city-utility relationship is fledgling, but the city was able to negotiate the relationship as one of the utility's largest customers.

Limited operational funding
Two small cities in Massachusetts valued the work a sustainability officer could provide, but neither had enough funds to support a full-time staff member. Instead, these two proximate municipalities split the cost of a single sustainability officer who develops policies and programs for both cities.

Shifting elected official interests
A sustainability coordinator in a midsize northwestern city was concerned that their programs would be deprioritized with a change in city leadership. They sought out awards and other forms of recognition for their portfolio to garner support from elected officials and the community for the programs.

State preemption on low-carbon regulations
A small city in the southeast must work within state preemption rules that prevent them from regulating the private uses of fossil fuels. As such, they have focused their decarbonization program on developing incentives for low-carbon development, including waiving permitting fees for energy-efficient development and offering development incentives to LEED certified buildings.

Residents have limited incomes to decarbonization on private property
A small southwestern city's officials were concerned that low-income households could not afford to take part in the energy transition, so they joined a community choice aggregation program to purchase renewable energy for city consumers in bulk, creating favorable prices for consumers and lowering the city's community emissions.

Restrictions on spending public funds on private property
A small northeastern city faced state-led restrictions regarding spending public funds on private property, challenging the implementation of city-based incentives for energy retrofits. Instead, the city developed land use regulations, including a green building standard for new developments and a building energy performance standard for existing buildings.

Multiple pathways to emissions reductions

Climate mitigation policy is still a relatively nascent public interest, and our research indicates that there is no single pathway to reduce municipal and community emissions. Rather, effective climate action involves the dynamic work of relationship-building, balancing the costs and benefits of trade-offs, innovating around constraints, and scaling the impact of limited resources. Municipal sustainability practitioners across the country show that climate action is possible when pragmatically tailored to a city's available resources and local constraints.