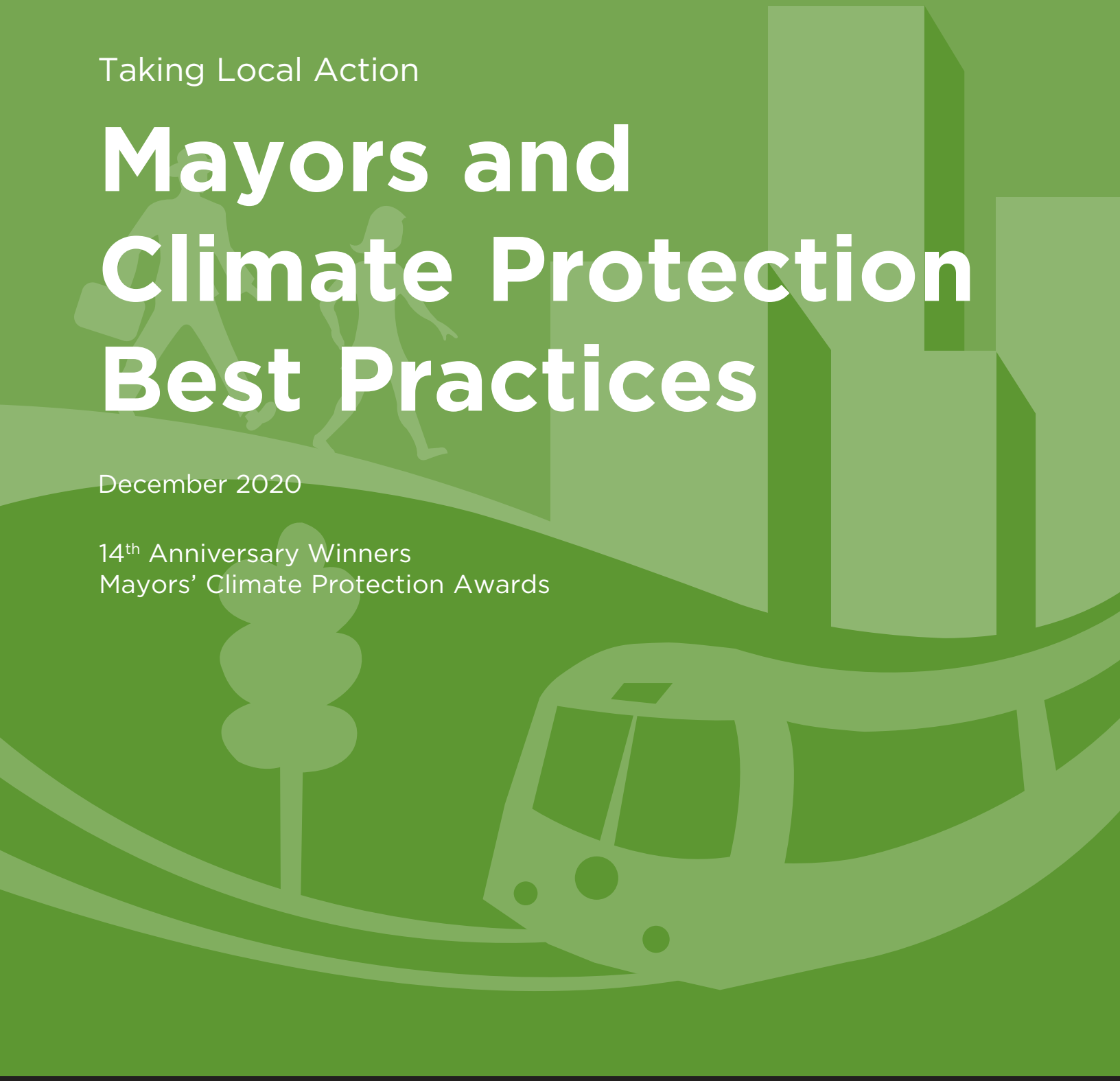
Taking Local Action

Mayors and Climate Protection Best Practices

December 2020

14th Anniversary Winners
Mayors' Climate Protection Awards



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CEO and Executive Director

The United States Conference of Mayors is the official non-partisan organization of cities with each city represented in the Conference by its chief elected official, the mayor.

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First Place Award Winners

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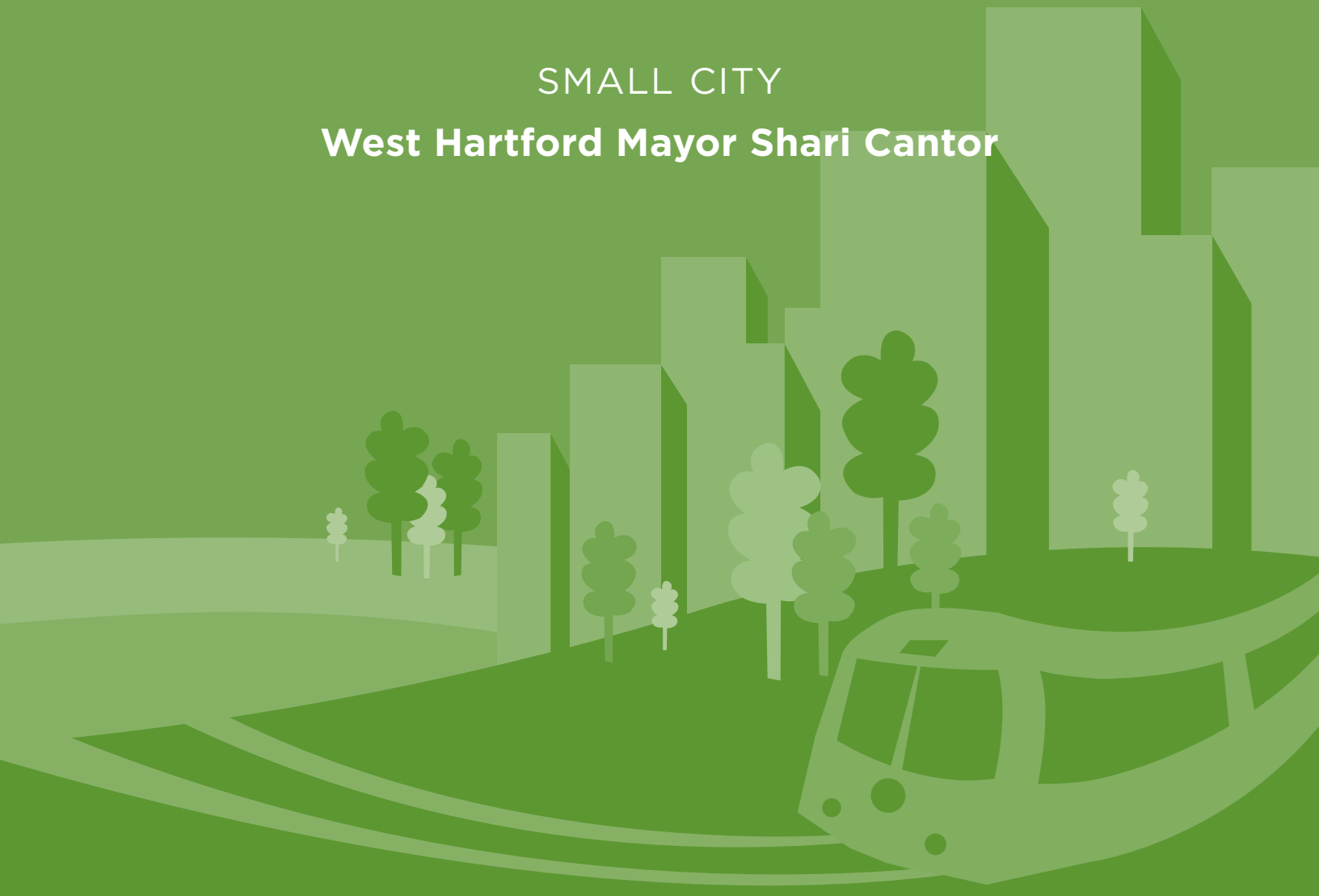

Pittsburgh Mayor William Peduto

Western Pennsylvania Energy Consortium

The Western Pennsylvania Energy Consortium (WPEC) is an innovative electricity collaborative purchasing platform led by the City of Pittsburgh since 2008. WPEC was established to reduce costs for its members by aggregating purchasing power from the large electricity load of all members' annual consumption. Currently, WPEC consists of 32 members, including some of Pittsburgh's largest authorities, and has a total annual electricity consumption of 160 gigawatt hours.

With each procurement cycle, WPEC members had been able to slowly increase the purchase of renewable energy credits (RECs), but in 2020 the purchase of RECs increased from 35 percent to 100 percent. This allowed the City to meet its goal of 100 percent renewable electricity by 2030, 10 years ahead of schedule in 2020. In addition to the success of fulfilling climate targets, this purchase saved $700,000 this year for the 30+ participants ($100,000 saved by the City of Pittsburgh alone).

Initially created as a cost saving tool, this initiative was identified as a key mechanism through which the City of Pittsburgh could achieve ambitious climate and energy goals. Through its purchasing power, WPEC allows its members to more easily incorporate renewable electricity sources while still keeping costs low. It also serves as a platform for knowledge sharing to help meet other goals such as 50 percent energy use reduction and installation of on-site renewables.

One of the greatest challenges arose as WPEC transitioned from its focus on lowest price point, to incorporating additional criteria such as carbon emissions, project location, and social responsibility metrics into the procurement evaluations. To help with this transition, the City hosted multiple workshops to align priorities and educated members on the basics of renewable electricity.

Through the purchase of these renewable energy credits, this consortium has already offset nearly 43,000 metric tons of CO2eq.

Few projects are able to have the breadth and depth of impact that this single initiative has achieved, proving that we can do more by working together. Aggregating the purchasing power of WPEC members has helped achieve ambitious climate goals, reduce operating costs, facilitate growth of the local renewable energy market, and create a cohort of municipalities and organizations collaborating to achieve common goals.

This consortium is able to operate with limited financing. Its members do not incur additional costs, but rather leverage existing utility budgets towards more climate-friendly sources of energy.

This program has quantifiably improved the quality of life in the city, especially in addressing air pollution and its adverse health impacts. Pittsburgh's poor air quality is a direct result of fossil fuel-powered energy generation in the region. With extended periods of poor air quality and a growing number of inversion events (when warm air traps cold air and pollution at the surface, causing super pollution events), Pittsburgh has one of the nation's highest rates of childhood asthma and asthma-related hospitalizations.

Because of the strong correlation between energy generation and air quality in Pittsburgh, an ACEEE report found that a 15 percent reduction in energy consumption would create a $200/person annual healthcare cost savings. Increasing the amount of local renewable energy directly and positively affects human health and quality of life.

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West Hartford Mayor Shari Cantor

Virtual Net Metering

The Town of West Hartford participates in a Virtual Net Metering program for 2.4 megawatts (MW) of solar. Renewable, solar energy is produced off-site (50 miles away in Thompson, CT) and "virtually" net metered against eight municipal buildings and schools, which serve as "beneficial accounts" for the credits associated with the solar generation.

This program directly aligns with the vision of the 2020 Energy Plan, as written by the West Hartford Clean Energy Commission: "We aspire for our *entire* community to use 100 percent clean energy by 2050." In order to reach this goal, West Hartford believes that many more new, creative programs and solutions, like this one, will need to be considered and implemented.

West Hartford has a well-developed and ongoing on-site municipal solar program – fourteen projects, including seven schools, ranging in size from 3 kW to 527 kW. However, not every municipal building is suited to solar or can support enough solar to meet its electricity needs. Additionally, being an urban suburb (of Hartford, CT), most suitable town-owned property is at a premium for recreational purposes and not available for solar.

Virtual Net Metering is a relatively new concept in Connecticut. There are few projects implemented to date, although the legislature is investigating expansion of the program. It took several months working with local partners – the Connecticut Green Bank, Eversource, and C-TEC Solar LLC of Bloomfield, CT – to understand how the program would work, educate decision-makers about the benefits and risks, and develop and execute contracts between the parties. West Hartford was not directly involved in financing the construction of the solar project, but the Town's commitment and proof of eligible municipal "beneficial accounts" were necessary for it to move forward.

In FY2020, the 2.4 MW solar project produced 2.8 million kWh of electricity, reducing greenhouse gas emissions by the equivalent of nearly 2,000 metric tons of CO2. While West Hartford does not own the renewable energy credits, or RECs, associated with the energy, it directly enabled the development of the project which supports local renewable generation, jobs, and economic benefits in the region.

Under a 20-year agreement, the Town of West Hartford, as the purchaser, pays 80 percent of the value of the solar credits to the owner, or seller. This is treated as a regular utility bill payment as part of the Town's operating budget. Twenty percent of the value of the credits is realized as savings to the Town.

In FY2020, the Virtual Net Metering program saved $72,000 in energy costs, with estimated savings to the Town's budget in excess of $1 million over the 20-year contract. A portion of these savings allows West Hartford to make a separate annual renewable energy credit purchase based on its total municipal electricity use.

West Hartford prides itself on a commitment to clean energy and the environment. This project not only results in operational savings for the Town, it enables the Town to serve as a model for other municipalities and the community at-large.

West Hartford was one of the first communities in the state to investigate and pursue Connecticut's "pilot" Virtual Net Metering program as an option for supporting solar energy and providing financial savings. West Hartford shared its analysis with neighboring cities and organizations, including the City of Hartford and the West Hartford Housing Authority, so that those entities did not have to start from square one, as West Hartford did.

With Virtual Net Metering experience on the municipal front, West Hartford is also well-positioned to educate and to act on behalf of residents as the state looks to expand similar programs. One example is community or shared solar, a subscription-based version of Virtual Net Metering which opens the door to solar "ownership" for low-to-moderate income customers and those who might not otherwise be able to participate (e.g., people who have roofs that are shaded or are otherwise unsuitable for solar, people who live in rental units, apartments or condos, or people who cannot afford the installation costs).

The Town of West Hartford remains open, flexible, and willing to consider all innovative programs and solutions to protect our climate and to achieve a clean, inclusive, equitable, and sustainable energy future.

Large City Honorable Mentions

Population Over 100,000

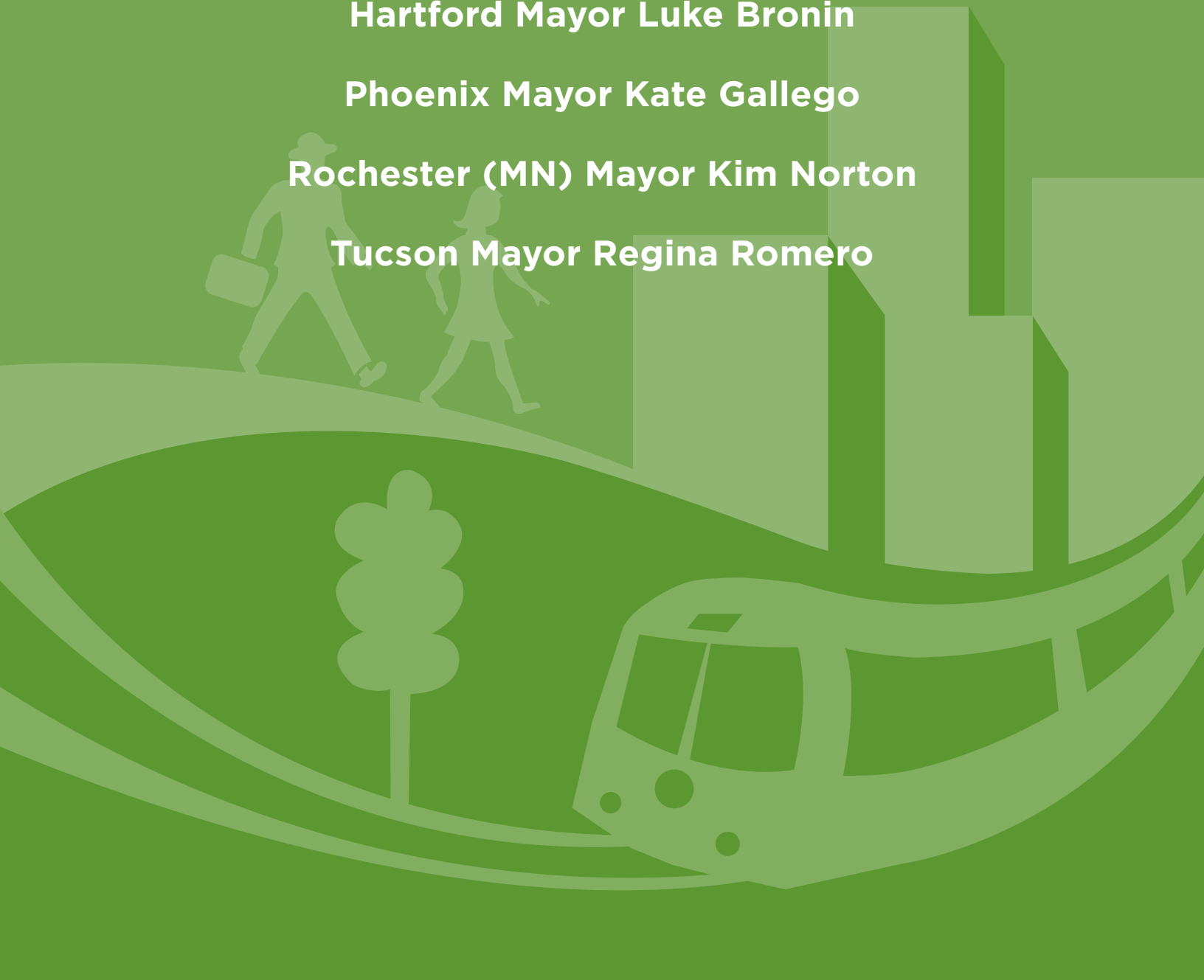
Cincinnati Mayor John Cranley

Hartford Mayor Luke Bronin

Phoenix Mayor Kate Gallego

Rochester (MN) Mayor Kim Norton

Tucson Mayor Regina Romero



Cincinnati Mayor John Cranley

Cincinnati Clean Energy Program

Cincinnati's *Clean Energy Program* has four sections: 1) 35 megawatts (MW) offsite solar for city government operations (~25 percent of the city's electricity load); 2) 65 MW offsite solar for the Community Choice Aggregation or CCA program (~15 percent of the CCA's electricity load, with a new contracting model that is REPLICATABLE); 3) 2 MW solar to power 10 city facilities; and 4) energy efficiency retrofits at city facilities (34,000 LED fixtures installed, 157 HVAC units replaced, and 24 facilities retro commissioned).

As the United States pulled out of the Paris Climate Agreement, Mayor Cranley stood on the steps of City Hall and pledged Cincinnati was committed to the goals of this accord. Cincinnati has always been a leader in clean energy. Among its achievements, the city began installing solar energy systems on its facilities in 2008, it created the nation's first large-city 100 percent green energy aggregation program in 2012, it built the nation's first net-zero police station in 2015, and it has the largest municipally-lead solar installation in the country. The city recognizes that there is no greater need than doing its part to fight climate change. These city efforts recognize that while pledges are great, action is required.

The biggest challenge before the city was the sheer size and complexity of the multitude of interrelated contracts. This program required three distinct requests for proposals (RFPs) and six separate contracts with six different vendors over three years. The continual involvement and direction by Mayor Cranley kept everything on track, helped align the city bureaucracy and remove internal barriers. Many doubted that a project of this scale could be completed by the city – results to date are proving them wrong.

The combined solar array will reduce greenhouse gasses by 158,000 tons of CO2 annually. The city facilities improvements will reduce GHG 15,000 tons annually.

The Cincinnati *Clean Energy Program* is a large undertaking, with many moving parts, but the greatest innovation overall is the new energy purchasing model that was developed, one that ensured that the city and the CCA participants bare no risk under the power purchase agreement in effect. This model is already being embraced by other Ohio CCAs. The Cincinnati 100 MW deal has led to an additional 1,000 MW being proposed across Ohio. It is anticipated this model will spur major solar development across the country. Notably, Ohio law does not allow for community solar, so the CCA model the city developed makes it possible to deliver affordable renewable energy to residents of all income brackets.

Importantly, this program requires no upfront capital; Cincinnati simply utilizes money already committed to purchasing energy. The solar arrays are power purchase agreements, meaning the city pays for the energy as generated over time from existing city energy budgets. The residents purchase the energy generated through the CCA and it is incorporated into a CCA charge on their utility bill. The energy efficiency portion is structured as an energy service contract, utilizing energy savings to fund the project over time.

All projects include a Project Labor Agreement that insures good wages and benefits for local workers. It also has inclusion goals requiring participation by local minority- and women-owned businesses. Finally, there is a partnership with Cincinnati State, the local community college, to help train workers.

The procurement models, RFP's and contracts the city has developed are already serving as a template for others, providing proven mechanisms for advancing local energy and climate goals in other cities.

Hartford Mayor Luke Bronin

Energy Justice

Since 2017, Mayor Bronin's Office of Sustainability has led energy justice initiatives that serve Hartford's most vulnerable residents and has helped address the city's fiscal crisis. Through outreach and advocacy, the two-person, primarily grant-funded team has worked with city departments and the community to launch an energy equity campaign, landfill solar efforts, and energy-saving tree distributions. The office also organizes volunteer-led Energy Improvement District meetings and convenes stakeholders on city energy contracts related to virtual net metering, demand response, and renewable energy credits that generate significant savings. The Sustainability Director also co-chairs a national working group on rental energy efficiency standards that aims to protect residents. For its efforts, Hartford is considered the most improved city in the nation since 2015 on energy issues, according to the American Council for an Energy-Efficient Economy.

In Hartford, the community struggles with poverty (30 percent), the highest residential electricity rates in the continental US, food insecurity (23 percent) and the highest unemployment rates in Connecticut (11.1 percent vs. the state at 5.8 percent). For the most vulnerable low-income households (those under 50 percent of the federal poverty line), utility bills can equal one-third of household income. This is a crushing energy burden that the office seeks to address, particularly given the connection between utility bills, foreclosure, and homelessness.

To maximize impact, the Office of Sustainability works with city departments and other local and regional stakeholders on projects that drive down energy costs and improve neighborhood resilience. These efforts are funded through a strategic combination of general funds (city), grants (foundations and nonprofits), plus financial mechanisms such as renewable energy credits, virtual net metering, demand response, and incentives associated with the regional grid or utilities. This office works to increase the inclusivity and accessibility of its programs to ensure participants represent a cross-section of community members, including, critically, youth of color.

The city prioritizes resident feedback and data analytics to inform decision-making. Hartford was among the first communities in the region featured on Google's Environmental Insights Explorer. The Administration also explored additional seamless energy data collection and performance visualization by introducing the municipality's first successful energy dashboard. This dashboard offers visibility into facility performance while integrating with ENERGY STAR's Portfolio Manager.

Progress can also be measured through the American Council for an Energy-Efficient Economy's city scorecard. In 2020, Hartford was ranked #23 of 100 cities across the country and recognized as the most improved city over time. Hartford is currently the smallest city in the top 25. Notable actions include development of a new landfill solar array, zoning code revisions, and community green infrastructure – but a special point of pride is the city's commitment to equity through environmental stewardship.

Taken together, these initiatives offer energy services, savings, and co-benefits to the community, and the potential for increased resiliency, greener neighborhoods, more efficient lighting, stormwater reductions, reduced heat island impacts, and cleaner air for everyone.

For more information on these initiatives, please visit hartfordct.gov/sustainability.

Phoenix Mayor Kate Gallego

Green and Sustainability Bond Program

The City of Phoenix's Green and Sustainability Bond Program issues bonds to finance land acquisitions, capital construction, equipment and other initiatives identified as environmentally sustainable projects. Through this program, the city published a Green and Sustainability Bond Framework to guide the city's capital improvement development process and ensure infrastructure projects are sustainable.

The city identified the need for this program by engaging with peer cities, finance industry professionals and local environmental leaders. Additionally, the city recognized that while the Green and Sustainability Bond market is a new area of municipal finance, there is significant growth in demand for these bonds. This program resulted in the city's first sustainability bond sale and provided Phoenix with a strong foundation to benefit from future savings as a result of this growing demand.

One challenge of the program was introducing the city to the novelty of the Green and Sustainability Bond market and building a more consistent working relationship between Finance and Sustainability staff. Phoenix was able to overcome these challenges by engaging with peer cities to learn best practices, partnering with CDP (formerly Carbon Disclosure Project) and facilitating a shared understanding that sustainability is an important component of long-term financial planning and economic stability.

The Green and Sustainability Bond Program focuses on aligning the city's Sustainability Goals and the U.N.'s Sustainable Development Goals with infrastructure projects in Phoenix. These goals range from ensuring a 100-year supply of clean water to building sustainable cities and communities. Phoenix's first sustainability bond sale was issued to finance projects supporting its Colorado River Resiliency efforts. These projects target drought resiliency efforts that protect Water System customers during Colorado River shortages and more efficiently distribute the city's water supply throughout the system. The improved efficiency of the water system reduces the amount of power required, and as a result, decreases greenhouse gas emissions in the community.

This program was the first Sustainability Bonds issued for a domestic water credit, is the first issuance to use CDP reporting as the continuing disclosure mechanism, and has broad applicability to other cities and projects. The $128 million bond was four times oversubscribed, demonstrating a growing interest in sustainability among potential investors.

The first sale of Sustainability Bonds under the city's program occurred on March 26, 2020 to support the Colorado River Resiliency efforts. The city sold $218 million of Sustainability Bonds during one of the greatest economic downturns since the Great Depression due to the COVID-19 pandemic. However, the bonds received such high demand that the city was able to reduce the cost of the debt. Additionally, the bonds received $103 million of orders that were influenced by the "Sustainability Bond" designation. This demonstrates the opportunity for future pricing benefits, serves as a model for other communities, and will result in future sustainability bond sales to continue financing projects that will improve Phoenician's quality of life and reduce emissions.

Rochester Mayor Kim Norton

Vision for Rochester

Under Mayor Norton, the City of Rochester (MN) established a Sustainability and Resiliency Task Force that was launched in Spring 2020 and is scheduled to adjourn in Spring 2021. The *Vision for Rochester* that the task force identified is "an equitable, inclusive community where people, economy, and environment are supported and thrive together." In addition to developing this vision, the task force's primary mandate is to develop a Sustainability and Resilience Action Plan that focuses on five key areas: City for Health; Accessible Transportation; Climate Change Resilience; Vibrant Neighborhoods; and Resilient Economy. The Sustainability and Resiliency Task Force is also charged with creating an action plan that helps the city mitigate and adapt to climate change, among other shocks and stressors identified in the planning phase.

Historically, the city's planning efforts have been designed by people with "authority" in the community. This authority can come from many places, local leaders, the demographic majority or the majority minority who regularly show up and participate in local processes. However, this left a large gap in developing plans that were truly reflective of the city and its residents.

The planning process to develop a community sustainability plan centers the voices of communities often left out of decision-making through broad and deep "community listening" that to date has gotten input from hundreds of community members, including refugees, immigrant, BIPOC communities, those who don't speak English at home, students, and more. A key part of this process is the composition on the task force, with the city appointing members who were about 28 percent people of color (Rochester is about 80 percent white).

In addition to community input, task force members represent a diverse spectrum of voices and expertise, and apply lenses of equity, sustainability, and resilience to the work of developing the Action Plan. The Action Plan will guide the city's future work in sustainability and resilience, emphasizing areas of overlap and gaps in existing work. Implementation, like the plan development itself, will center diverse communities throughout the city and ensure that no one is left out of a sustainable and resilient Rochester.

SRTF Community Listening Sessions - To ensure the community had a voice in guiding the development of a Sustainability and Resiliency Action Plan for the City of Rochester, the planning team undertook a Stakeholder Power Mapping Analysis that in turn formed the community listening plan to connect one-on-one with residents from key population segments. In one-hour sessions, city staff sat down with various individuals and groups, asking them to reflect on their experience as a member of the community and what they envisioned for Rochester's future.

Thirty-seven listening sessions were held, capturing input from various communities of diverse background and prioritizing voices not typically heard from in the city's engagement processes. Key needs identified in several listening sessions included affordable housing and a living wage, diverse representation in local government and small business, equitable access to community resources and communications, a strong education system, equal opportunity, and more events that bring the community together and celebrate its diversity.

The outcomes of the listening sessions and Action Plan identify actions and programs that reduce greenhouse gas emissions while building social equity and connectedness in the community at little cost or, ideally, with a financial return to the community. To date, actions across five focus areas are being developed with task force members. Focus areas Accessible Transit and Climate Change Resilience are likely to promote programs and community actions that reduce substantially greenhouse gas emissions and puts the city on a path to meet its climate reduction goals of a 30 percent reduction by 2025 and an 80 percent reduction by 2050.

The task force, comprised of a diverse cross-section of more than 40 community members, places particular emphasis on those individuals in the city who are likely to be most impacted (and too often have the least control), bringing them together with organizations typically represented as decisionmakers within the community. Task force members will utilize their relationships within the community to ensure all residents can share their lived experience, providing input valuable to guiding the city's plan.

By engaging traditionally dis-engaged and dis-connected residents, the city is designing processes and projects that are more sustainable as they reflect the input from a more diverse audience, bringing viewpoints from residents who typically do not have a seat at the table. For example, the mayor's office has assembled a list of community groups and individuals to serve as conduits to building a broader and more diverse representation of the community. This list will also be used to notify residents of grant, job or other opportunities linked to the city (i.e., CARES Act funds, grants or Board and Commission activities). Mayor Norton uses this resource to meet with various community groups to advance city initiatives in other policy arenas, like police reform, city hiring practices, and even workforce opportunities targeted to the Somali Community.

For the past five years, Rochester has been on a journey of transformation. As America's "City for Health," we have been focused on improving the built environment in a way that balances public and private social, economic and environmental health. By focusing our efforts around equity and inclusion, we have been able to take what we have learned in our community listening sessions and brought intentionality to the design efforts of our community projects and into our organization through the long-term commitment of partnerships that promote diversity.

Here are some examples of the city initiatives to advance this policy focus:

Heart of the City Public Realm - Inclusive Community Engagement Analysis: During design development of this public project our local partner, DMC EDA commissioned a study to better understand its community engagement approach through an equity lens, which identified several areas of opportunity for improvement. This study informs the team's future direction.

Discovery Walk Linear Park - Community Co-Design Pilot: Building on the Heart of the City findings, the DMC EDA used an innovative approach during the concept design of Discovery Walk to ensure the project reflected the diversity of the community while being enriched through a range of voices. This approach is called a Community Co-Design process. Community members from several historically under-represented communities in Rochester were hired to participate as members of the design team, and were compensated for their time and expertise, just as the architects, planners and other hired professionals are in the typical design process. The outcome of this process will be to produce a public space that should better fulfill the DMC Development Plan's goal to create "a place for Rochester… envisioned by its citizens. It reflects the principles, ideas and culture unique to this community." Several of the Community Co-Designers will continue to participate as part of the design team throughout the entire design and construction process in Phase 2.

Rapid Transit Project - Community Co-Design: The success of this initial Co-Design approach is being replicated for our $114 million Rapid Transit Project. Honoring and financially compensating Community Co-Designers will continue to ensure initiatives reflect the community's vision for highlighting and celebrating its diversity while providing a pathway to breaking down systems of structural oppression and racial bias. More information on this Co-Design Process can be found at https://www.rochestermn.gov/departments/administration/rochester-rapid-transit/station-architecture-urban-design/

In financing these efforts, the city's 2020 Community Development Department Sustainability Budget provided funding to support this effort, including funding for a Sustainability Coordinator (including benefits) $98,873. (The Sustainability Coordinator allocates approximately 30 percent of her time toward this effort). In addition, the city allocated $25,000 toward sustainability initiatives, with $10,000 of this funding allocated to the Sustainability and Resiliency Task Force (SRTF) engagement effort. In addition, approximately $8,000 of this funding has been used to hire a student intern and a GreenCorps member to support the research needed for the SRTF with the balance of funding used to support sustainability network, education and air quality efforts.

Key to the success of the SRTF to date has been our partnership with Destination Medical Center (DMC) which has championed this communitywide effort and has provided a majority of the funding to hire consultants to help guide the SRTF plan development and engagement effort. The overall Budget of SRTF is $90,791, with McKnight Grant of $80,791 and city funding of $10,000. Lastly, DMC is providing additional in-kind resources, specifically its Energy and Sustainability Director, to help guide this effort and manage the McKnight grant funding.

By listening to the community, the task force has already developed a list of community needs (such as affordable housing, renewable energy, and improved job opportunities for young people), and it is using its members to provide professional expertise, lived experience, and knowledge of the community to match these needs with solutions that enhance the sustainability

and resilience of the community, including and especially climate change adaptation. For example, the task force linked the need to enhance access to parks and green space to climate change adaptation because green space provides cooling services to surrounding communities by mitigating the urban heat island effect, providing access to lakes and swimming pools when it is hot, and other community and ecological services.

Thus far, among the outcomes of this Action Plan are new opportunities that have been created for historically marginalized communities, including expanded participation in government and opened up new pathways to the city's democratic governance. Beyond the creation of a plan that identifies important and necessary strategies to reduce local emissions, the city is finding immense promise in this equitable community engagement approach, leading to new ways that bring the community and its residents closer together, build cultural competency and understanding, and promote shared decision-making with those that historically had trouble accessing it.

Tucson Mayor Regina Romero

Santa Cruz River Heritage Project

The Santa Cruz River Heritage Project (Heritage Project) is an innovative project that uses recycled water (highly treated wastewater) to recharge the Santa Cruz River near the downtown area. In addition to recharging our aquifer for later use, this recycled water creates outdoor recreational opportunities, supports native vegetation, and provides habitat for the endangered Gila Topminnow that was recently reintroduced in this section of the river after 100 years.

About half of Tucson's reclaimed water is not used by Tucsonans and had been discharged into the Santa Cruz River further downstream, near the city's northwestern edge, where the city loses physical and legal control of this valuable resource. By re-directing the water discharge to a downtown location, the city is now receiving recharge credits, restoring habitat, and providing an environmental amenity to Tucson residents.

The project required an unprecedented amount of coordination and collaboration between the City of Tucson and other government agencies, institutions, and the community. Critical elements included working with Pima County to develop plans for maintaining flood control within the urban waterway, collaborating with University of Arizona ecologists and environmental nonprofits to develop restoration plans and communicate with the public, and partnering with state and federal agencies to facilitate the reintroduction of Gila Topminnow and other native and threatened wildlife.

More than half of the City of Tucson's carbon footprint is associated with the delivery of water, the majority of which is Colorado River water conveyed some 300 miles and 2,000 feet uphill by the Central Arizona Project canal. A key strategy for reducing greenhouse gas emissions is maximizing the use of recycled water (i.e., treated wastewater) within the community. The Heritage Project will allow the city to store the equivalent of up to 15,000 families' water usage each year; and play an important role in achieving 100 percent use of available recycled water within the community.

This section of the Santa Cruz River near downtown Tucson has been home to 4,000 years of continuous human habitation, and to North America's earliest known instances of irrigated agriculture. Restoring flowing water to this area known as "Tucson's birthplace" after a 100-year absence not only improves sustainability and quality of life, it brings vitality, inspiration, and sustenance in the form of a river flowing at the heart of the community's identity.

The project was extremely cost-effective, using Tucson Water's (city-owned water utility) existing reclaimed water infrastructure to deliver water to the site. The entire cost for the project was approximately $1 million, using Tucson Water operating funds.

The project restored perennial flow to nearly two miles of river through multiple neighborhoods and downtown Tucson's near west side, within walking or biking distance for hundreds of thousands of residents and workers. Visitors now enjoy watching wildlife, returning vegetation, and flowing water along (pre-existing) multi-use pathways along both sides of the river. Researchers and residents have documented the return of dozens of species of birds, dragonflies, and other wildlife including rare and threatened species.

Small City Honorable Mentions

Population Under 100,000

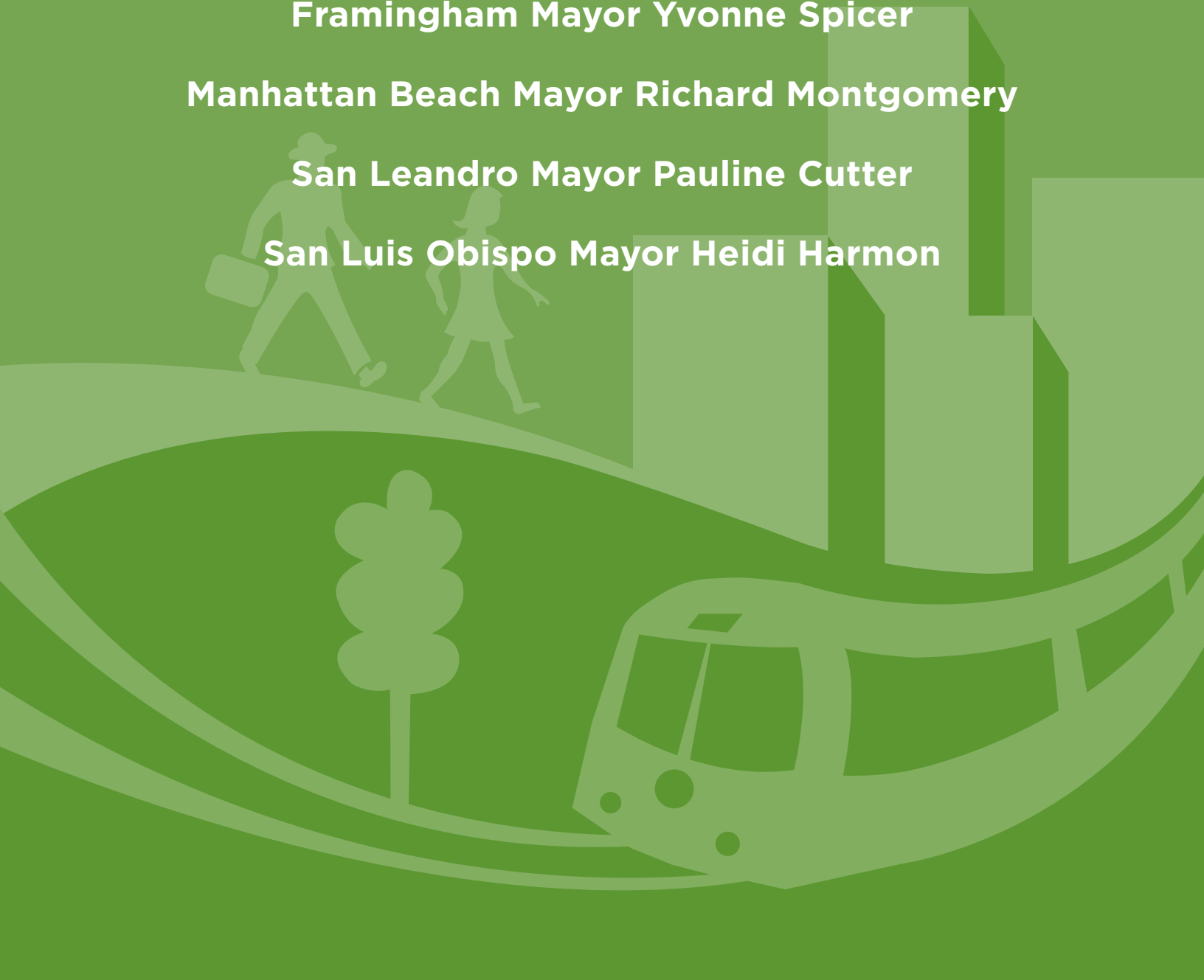
Albany Mayor Kathy Sheehan

Framingham Mayor Yvonne Spicer

Manhattan Beach Mayor Richard Montgomery

San Leandro Mayor Pauline Cutter

San Luis Obispo Mayor Heidi Harmon



Albany Mayor Kathy Sheehan

Street Light Replacement Program

In July of 2019, the City of Albany purchased all 10,877 street lights in the city from National Grid, the local utility. Since then, the city has been replacing all of the fixtures with energy efficient LEDs. This modernization of the city's street lights is projected to save $2.7 million in facilities charges and $1 million annually in energy costs. At the same time, the project is reducing the city's greenhouse gas emissions by 2,545 metric tons of CO2 equivalent annually.

In 2015, the State of New York passed the *Street Light Replacement and Savings Act*, which enables local governments to take over street lighting from their local utility and convert them to LEDs. Albany has seen how this local ownership can bring new benefits to a community. Local ownership has translated into faster response times and better maintenance, now that these lights are a city responsibility, not part of a large utility. Upgrading the lighting to LEDs means better lighting, lower costs, and fewer greenhouse gas emissions. Recognizing that utilities can sometimes be slow in adapting their infrastructure and facilities, city control of street lights can accelerate the deployment of new technologies and capacities. In the end, locally-owned LEDs mean better and more public benefits.

The biggest challenge was the city becoming, in effect, a new, small-scale utility. Communicating the plan to the public, training staff in new skills, and intense coordination with National Grid and the New York Power Authority were challenging as well, and certainly consumed considerable time and resources.

Importantly, LED street lights use substantially less electricity than other types, resulting in lower emissions from reduced energy demand. NYSERDA has estimated that the City of Albany's street light conversion program will reduce emissions by 2,545 metric tons of CO2 equivalent annually.

To finance the buyback and LED conversion, in 2019 the City of Albany issued a 15-year $27 million bond. While this represented a significant borrowing, the project resulted in a positive cash flow in year one while still paying debt service on the bond. Albany also received $850,000 from the New York Power Authority as a "Five Cities" grant as well as $658,000 in incentives from National Grid for the conversion.

The conversion to LEDs has certainly improved the quality of life for city and its residents, whether it is averting thousands of tons of carbon emissions or providing budget savings that can be used for other community improvements. An overlooked benefit of LED technology is the quality of light, approximating daylight much more than traditional lights while using less energy. LEDs appear brighter and illuminate better, improving public safety and discouraging crime.

The City of Albany was one of the first communities in National Grid's service area to buy their street lights. Given the environmental and financial benefits of this program to Albany, we surely will not be the last.

Framingham Mayor Yvonne Spicer

Efficient Framingham

Efficient Framingham (EF) is Framingham's overarching outreach program to empower residents and businesses to save energy, curb greenhouse gas emissions, reduce energy costs, and strengthen local sustainability and resiliency. Utilizing partnerships with the local utility company, Eversource, nonprofits, and other community organizations, the program supports Framingham's diverse community – including low- and moderate-income families, small businesses, and members of Environmental Justice populations – by connecting them with resources that they can utilize to implement energy-saving projects such as weatherization measures, LEDs, and HVAC upgrades.

EF began with a small business campaign in September 2019 organized by Eversource. Alongside mailers sent to all small businesses, Framingham coordinated on-site visits with the utility for more than 385 local sites to identify no-cost savings opportunities and schedule more comprehensive energy assessments. These visits identified potential energy conservation measures projected to result in annual savings of more than 3,000,000 kWh and 29,000 therms, amounting to a total annual reduction of 1,200 metric tons of CO2 equivalent emissions. Building on this campaign, Framingham worked with Eversource and local grassroots groups like Sustainable Framingham on a pilot initiative called the Mass Save Municipal Partnership Program to engage in a broader long-term effort that utilizes meetings, educational webinars, mailers, and social media to expand support throughout the community.

While Framingham continues to invest in the energy efficiency of municipal operations, underutilization of efficiency resources by residents and businesses highlighted the need for the community to be central to Framingham's greenhouse gas emissions reductions strategy. The importance of this work also stems from climate resiliency planning completed through the state's Municipal Vulnerability Preparedness Program, which identified energy efficiency as vital to the community given the positive impact it can have on buildings during periods of extreme temperatures and prolonged power outages.

Coordinating energy efficiency outreach with limited staff and resources was a major challenge. Local partnerships helped the city develop a robust plan for its community outreach strategy. While the COVID-19 pandemic has also presented its own significant challenges and resulted in fundamental changes to its community outreach plan, Framingham is adapting, leveraging virtual engagement strategies. Despite a difficult 2020, Framingham seeks to build upon its progress and expand this program in 2021, supplementing its outreach team with additional multilingual and technical support, covering other clean energy technologies, and focusing on new virtual engagement opportunities.

By assisting community members to make use of available energy efficiency resources, EF continues to help residents and local businesses achieve cost savings and provide community-wide economic, health, and resilience benefits. For example, energy efficiency outreach to small businesses from September 2019 to November 2020 has helped launch projects that are expected to contribute to an annual reduction of over 879 metric tons of CO2 equivalent emissions. So far, this work has already connected businesses with more than $2.8 million in incentives to complete energy efficiency projects. Additionally, 504 residential heating and cooling system upgrades completed by October 2020 will result in further community emissions reductions and savings.

To maximize its limited resources, Efficient Framingham leverages funding and technical support available to residents and businesses through utility incentives and initiatives, state grants, and other opportunities. This allows the outreach team and partners to focus on educating residents and businesses about energy efficiency and connecting them with these resources. Supplemented by the funding that the utility provides through incentives, assistance with outreach materials, and the $2,000 that they have provided for outreach efforts so far, this work has relied primarily on the time and effort of municipal staff, utility representatives, volunteers, and local partners.

Climate, energy, and economic benefits associated with EF have made the program a cornerstone of Framingham's greenhouse gas emissions reduction strategy. Energy projects completed through EF help residents and businesses save money, reduce pollution, and improve their health and comfort. Given the impacts of COVID-19, the program will continue to be an integral resource for the community to reduce costs while building a more sustainable and resilient future for Framingham

Manhattan Beach Richard Montgomery

Climate Ready Manhattan Beach

Manhattan Beach will soon power the entire community with 100 percent clean, renewable energy. On November 17, 2020, the Manhattan Beach City Council selected 100 percent Green Power as the default electricity for all power customers, following the switch to 100 percent renewable energy for all municipal operations in 2019. Concurrently, the city launched Climate Ready Manhattan Beach which includes: creating a Climate Action and Adaptation Plan (CAAP); completing sea level rise (SLR) and climate vulnerability assessments; and updating the city's land use and hazard plans.

"Cities are on the front lines when it comes to climate change. I'm proud that Manhattan Beach is one of those cities leading the world in reducing carbon emissions through policies and adoption of clean technologies," said then Mayor Richard Montgomery. "Our City has a strong history of taking climate action and moving towards sustainability, and the Council's decision to power the City with 100 percent renewable energy through Clean Power Alliance has a direct correlation with lowering carbon emissions and building a legacy for future generations."

In addition to identifying additional climate actions, Climate Ready MB will help the city prepare for climate change, including climate hazard analyses such as a cutting-edge Multi-Hazard Confluence Modeling on Stormwater Infrastructure Vulnerability Assessment, a Groundwater-SLR Vulnerability Analysis, and novel public engagement including SLR virtual reality. www.citymb.info/ClimateReadyMB

Manhattan Beach is committed to reducing GHGs and continues to take action. Earning an "A" in 2019 for carbon disclosure to CDP, committing to uphold the Paris Climate Agreement through the Compact of Mayors, joining Clean Power Alliance community choice energy, and enacting best practice energy efficiency measures has kept the city on track and exceeding California state requirements for renewable energy, waste diversion, and climate adaptation.

The COVID-19 Pandemic has created a difficult situation for public engagement in L.A. County; however, the city has met the moment and shown the ability to address more than just one crisis at a time. The city is using an immersive virtual reality (VR) experience to "Look Ahead" and raise awareness of the impacts of climate change and sea level rise while providing survey questions to assess public support for different carbon reduction strategies. Created in partnership with the USGS and Whitespace VR, these sea level rise visualizations give the public a 360-degree virtual tour of three locations along the city's coastline: Manhattan Beach Pier, Bruce's Beach, and El Porto. VR shows how the coast would look with flooding from SLR and coastal storms, while identifying what is possible if climate action is taken www.citymb.info/LookAhead.

The city's community-wide GHG emissions show a downward trend from 2005 to 2016; however, city emissions could increase by ~30 percent by 2050 with no action. Using 2016 data, community-wide emissions are 245,367 MTCO2e, with electricity from city facilities accounting for a substantial portion. Including recent actions to reducing energy use by investing in converting all streetlights and ballfield lights to LED, City Council initiated swift climate action leadership in 2019 to move all municipal operations to 100 percent renewable energy, with anticipated ~40 percent City GHG reduction. With the recent decision to move community power to 100 percent renewable energy, the city anticipates community emissions dropping by ~20 percent.

By taking climate action through 100 percent renewable energy, concurrent with launching a nature-based climate adaptation project and CAAP process, Manhattan Beach is demonstrating holistic climate leadership. Engaging community voices is key to ensuring long-term success. Climate Ready MB includes a robust public engagement strategy, created with the city's Sustainability Task Force, composed of volunteer environmental experts. The city is distinctive in its approach to meaningful public engagement – such as providing "Urban Tides" beach walks with 30 residents walking with coastal scientists from USC Sea Grant, The Bay Foundation and the city in early 2020 to explain the benefits of a dune restoration or holding a "Challenge of Climate Change" Mayor's Townhall in March 2020 where the city facilitated local experts meeting with over 100 community members translating science into individual actions to cut carbon.

Climate Ready MB is partially funded by a competitive grant from the California Coastal Commission for $225,000 – the highest amount awarded since 2017. The beach dune restoration is fully-funded by a climate ready grant from the CA State Coastal Conservancy.

One major climate hazard threatening the community is an eroding beach caused by SLR combined with coastal storms. Through a collaborative partnership with The Bay Foundation and the Los Angeles County Department of Beaches and Harbors, launching the Manhattan Beach Dune Restoration Project will restore three acres of dunes along 0.6 miles of the city's coastline – fully funded by a grant. The dune restoration will increase the resiliency of the city to SLR and coastal erosion, while providing habitat through a "living shoreline." The restoration will protect important assets to the community, including "The Strand" walking and bike paths, world-famous beach volleyball courts, and access to the El Porto surf spot. By embarking on the dune restoration concurrent with development of the CAAP, Manhattan Beach is able to provide residents with an example of a climate adaptation solution that provides carbon sequestration and improvement of quality of life for residents and local wildlife.

San Leandro Mayor Pauline Cutter

Solar and Energy Efficiency in Wastewater Operations

The City of San Leandro recently completed a solar and energy efficiency upgrade project at its Water Pollution Control Plant (WPCP), including a 1 MW photovoltaic solar array, new HVAC controls, and LED lighting retrofits.

The WPCP is the largest municipal energy user, with current annual electrical charges budgeted at $550,000. The project's energy efficiency upgrades and solar power generation system are projected to reduce the WPCP's electrical energy consumption by at least 45 percent or $247,500 annually. Furthermore, San Leandro's Climate Action Plan embraces renewable energy and energy efficiency as top priorities.

While there were some delays in getting the final approval from the utility, consistent communication kept the project moving forward and the city was able to get the Permit to Operate in early May 2020.

The new solar system is projected to generate 1,589,244 kWh per year, with the first three months of generation data indicating that the system is performing above expectations. The combined energy efficiency and solar system is projected to reduce GHG emissions by about 2.8 million lbs. annually, helping the city to meet its Climate Action Plan goal of reducing emissions by 25 percent below 2005 levels by 2020.

Notably, the solar power generation helps drive the production of recycled water at the WPCP, which became available to residents and businesses last year. The San Leandro City Council also recently approved a battery storage component to the system to turn the solar array into a stand-alone microgrid, which will be completed in the next two years. This project will be funded in part with a $420,857 grant from Pacific Gas and Electric's Self Generation Incentive Program, with the remainder of the funding from a municipal lease.

The city was awarded a grant of $1,995,963 from the California Energy Commission in 2017 to install the solar array, one of only four entities to receive such a grant that round and the largest grant given. This, coupled with $1,922,905 in matching funds from the WPCP's enterprise fund, financed all of the energy efficiency upgrades.

Overall, the project helps to address climate change and resilience in the city by protecting the critical services of the WPCP against possible power outages. The reduction in energy costs means that funds can be used for planned WPCP capital projects and/or to reduce future rate increases to ratepayers. This is the first solar microgrid project for the city and showcases the leadership of the mayor and council.

San Luis Obispo Mayor Heidi Harmon

Clean Energy Choice Program for New Buildings

The Clean Energy Choice Program for New Buildings encourages clean, efficient, and cost effective all-electric new buildings through incentives and local amendments to the California Energy Code. When paired with cost comparable modern electric appliances and increasingly renewable and carbon-free electricity from the regional community-choice energy aggregator Central Coast Community Energy (CCCE), all-electric new buildings have very low operational greenhouse gas emissions and are cost effective.

In 2016, the City of San Luis Obispo engaged in Development Agreement negotiations with developers of two of the last three major subdivisions contemplated in the City's General Plan. In those conversations, climate and energy were key discussion points. The City identified all-electric buildings as a potential negotiating point and the participating developers were receptive so long as all new developments were subject to a citywide policy. Shortly after, the City of San Luis Obispo City Council designated "climate action" as a Major City Goal, which placed a significant focus on widespread community decarbonization. Council subsequently directed staff to study the potential for a citywide all-electric new building program. This direction occurred concurrent with supportive emerging conditions, including:

- A rapidly growing statewide building decarbonization movement;
- The 2019 California Building Code enabling all-electric buildings and requiring local adoption;
- Growing local interest in building decarbonization;
- Electric appliances becoming more efficient, cost-comparable, and common; and
- Lower cost electricity generation rates associated with joining CCCE.

The topic of all-electric new buildings was new to many stakeholders and throughout the planning and public engagement process, the city had to provide substantial education and outreach and contend with misinformation. For example, there was misinformation distributed throughout various community channels that resulted in a misunderstanding of the program and its applicability. City staff dedicated substantial time and resources to addressing this misunderstanding, specifically with key stakeholders including labor, developers, builders, architects, and community advocates. After working with key stakeholders to improve the draft program, the program was unanimously adopted in June 2020.

In addition to the amendments to the California Energy Code, the city developed four incentives. First, the city advocated to CCCE for over $615,000 in incentives to support construction of 302 all-electric multi-family and affordable housing units in the city. Second, the city established on-call professional design and consulting services to answer technical questions about the Clean Energy Choice Program for New Buildings. Third, the city adopted limited term regulatory flexibility to address design challenges that may arise during the initial transition period to all-electric buildings through 2022. Finally, the city dedicated staff time and resources to create educational materials about the environmental and operational benefits of all-electric new buildings.

The program is funded through a combination of sources, including General Fund support for consultants and legal review, staff time, leveraged expertise from the Zero Emissions Building Task Force and other peer cities, and a $15,000 incentive from CCCE for adopting the program.

The program will create a legacy of safe, comfortable, cost-effective new buildings for the community and has developed substantial local capacity to begin working on decarbonizing existing buildings. The all electric buildings will be healthier and have substantially lower operational greenhouse gas emissions. Additionally, the transition to all-electric new development offers a critical opportunity to engage a growing local workforce and stimulate the green local economy. The city expect thousands of housing units to be built all-electric over the next several years, which will result in substantially lower greenhouse gas emissions and progress towards the community goal of carbon neutrality by 2035.

For more information, visit www.slocity.org/cleanenergychoice.

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