Taking Local Action

Mayors and Climate Protection Best Practices

December 2021

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First Place Award Winners

LARGE CITY
Houston Mayor Sylvester Turner 6

SMALL CITY
Beverly Mayor Michael P. Cahill 7

Large City Honorable Mentions
Anaheim Mayor Harry Sidhu 10
Henderson Mayor Debra March 11
New York City Mayor Bill de Blasio 12
Orlando Mayor Buddy Dyer 13
Reno Mayor Hillary Schieve 14
San Antonio Mayor Ron Nirenberg 15
San Diego Mayor Todd Gloria 16

Small City Honorable Mentions
Issaquah Mayor Mary Lou Pauly 18
Salem Mayor Kimberley Driscoll 19
San Leandro Mayor Pauline Russo Cutter 20
White Plains Mayor Thomas Roach 21
First Place Award Winners

LARGE CITY

Houston Mayor Sylvester Turner

SMALL CITY

Beverly Mayor Michael P. Cahill
Houston Mayor Sylvester Turner

Sunnyside Landfill Solar Project

The Sunnyside Landfill Solar Project redevelops a former landfill in the Sunnyside neighborhood of Houston into the largest urban solar farm in the country – including a 50 MW commercial solar farm and a 2 MW community solar array. The project won the favor of both the City of Houston and the Sunnyside community because of the multiple co-benefits it offered, including generating clean energy, providing workforce training and job opportunities, and securing and maintaining a site which has been the source of environmental concerns for generations of community members. In 2019, the initial concept for the Sunnyside Landfill Solar Project was selected as the winner of the C40 Reinventing Cities competition, a global design contest to transform under-used municipal properties from around the world into innovative, carbon-free, and resilient urban projects.

Sunnyside is in one of Mayor Turner’s Complete Communities and the project aligns with the vison set forth by the Resilient Houston Strategy and the goals in the Climate Action Plan. They are intrinsically tied to each other: one cannot discuss climate action without incorporating resilience, and one cannot build resilience without prioritizing equity.

In the 1930s, the City of Houston built a 240-acre landfill in Sunnyside – one of the oldest African American communities in the city. For decades, the landfill contributed to the stagnation of the neighborhood’s economy and presented serious health and safety concerns for its children, families, and residents. After protests and fierce debate, the landfill was closed and abandoned in 1970 but due to environmental safety concerns, the site remained undeveloped. Fifty years later, the unmaintained former landfill is overgrown and largely unfenced – allowing unwanted foot traffic and illegal dumping – and bringing blight to the neighboring community. Environmental and climate justice starts by looking at the past. There is a unique opportunity to convert this land, which has weighed down an entire community, into an asset that not only contributes to our carbon emission goals, but also creates jobs and prioritizes opportunities for residents of Sunnyside.

Sunnyside’s long history of fighting environmental injustice meant that ensuring transparent, open dialogue and thorough community engagement efforts from both the project developers – Sunnyside Energy LLC – and the City of Houston would be critical to the success of the project. Sunnyside Energy LLC worked with the City of Houston to complete financial and environmental feasibility studies, communicating with the Sunnyside community at every step of the process and designing the project with community input.

The project is expected to generate enough clean energy to power 5,000-10,000 homes and offset about 120 million pounds of carbon annually.

It is an example of how cities can combat the climate crisis while creating jobs and addressing environmental injustice. Not only will it contribute to the Houston Climate Action Plan’s target of generating 5 million MWh of local solar energy per year by 2050, but it will also bring an estimated $70 million in private investment to the Sunnyside community and create jobs and training opportunities in one of the today’s fastest growing job sectors.

In January 2021, Mayor Sylvester Turner and the city council unanimously approved a lease agreement to Sunnyside Energy LLC for a symbolic $1 per year. The project is privately funded and will be completed by the end of 2022, at no cost to the city.

The Sunnyside Landfill Solar Project will transform a hazardous brownfield property into a properly-maintained commercial “brightfield” which will provide jobs, training, and education opportunities, as well as contribute to reducing energy poverty by offering clean power at a discounted rate to lower-income residents.
Beverly Mayor Michael P. Cahill

Mitigation and the Clean Energy Transition: EVs & Green Schools

Among its ongoing energy efforts to reduce greenhouse gas emissions, the City of Beverly is proud to highlight two high-impact initiatives: electric vehicles (EVs); and the Green Schools Program. The city is pursuing a swift transition to EVs, by electrifying its school vehicle fleet by 2030 and providing publicly accessible EV infrastructure throughout the city to serve residents, visitors, and businesses. The program has been launched through strong internal goal-setting, creative financing, and strategic public-private partnerships.

To support the broader deployment of EVs, the city participates in a utility Fleet Advisory Services Program, that helps the city analyze and map the full transition of its municipal fleet to EVs. The city has purchased two and leased two police EVs and hybridized nine school vehicles, including 6 half-buses and 3 vans. Already, 23 publicly accessible Level 2 charging ports have been installed in municipal lots, and the city has awarded an RFP for DC Fast Charging stations one of its downtown parking lots. The city also participates in regional efforts to coordinate expanded resources to support the widespread adoption and installation of EV infrastructure.

The city’s first electric school bus, dubbed by students as “The Magic Bus,” is the first in New England to use vehicle-to-grid technology. The second bus has been delivered and will be in service any day. These successful initial commitments have helped build the case for the city to procure only electric school vehicles in lieu of diesel.

This is linked to a broader initiative: the Beverly Green Schools Program. The city has realized significant emission reductions, supported educational opportunities for students, and implemented innovative technologies protective of student health through the following:

- Hosting a new 5 MW solar array on a former Beverly landfill, with a third of Renewable Energy Credits applied to school electricity accounts;
- Construction of a new LEED Silver-certified middle school;
- Installation of EV charging stations at three schools;
- Installation of controlled heating, cooling, and ventilation equipment upgrades at five schools;
- Installation of new energy management systems; and,
- Installation of solar arrays on the High School grounds and roof.

In Summer 2022, We will install nearly 4 MW of rooftop, ground-mounted, and parking canopy solar with battery storage at two schools through a power purchase agreement.

The city has long-recognized the global trend toward vehicle electrification and has worked toward an expeditious transition from fossil fuel-reliant internal combustion engines to EVs that can be charged through an increasingly renewable energy-powered electricity grid. In assessing its broader municipal footprint, the city also recognized that schools presented the greatest opportunity to rapidly reduce public building energy usage, with schools buildings accounting for 42 percent of total municipal building emissions. As such, for nearly a decade the city has channeled a large share of its grant funds from the state Green Communities program toward energy conservation and efficiency measures at school facilities. The broad range of energy efficiency, renewable energy, and EV projects contribute to the city’s energy goals while providing a unique opportunity for Beverly students to learn about and experience climate action first-hand.

Prior to adoption of the city’s climate action and resilience plan in June 2021, Resilient Together, which set specific EV and supply equipment targets and included calculated emissions, Mayor Michael Cahill set an informal policy that new vehicles be electric and hybrid wherever possible, challenging city department heads to research cleaner alternatives. Because the EV industry field is still nascent and options for hardware (supply equipment and EVs) and software are limited and often cost-prohibitive, the city employed creative financing models, utilized available grant funding, and engaged in advocacy to government leaders and private sector providers to expand more options for municipalities.

On another front, a significant challenge in developing the planned solar arrays on school facilities is the high proposed cost of interconnection to the electric grid. This spurred extensive research, negotiation, and state-wide and national advocacy for more comprehensive electrical grid modernization planning. Successful negotiation has reduced interconnection costs; however, delays due to this interconnection process continue to challenge the city’s ability to align the construction timeline with the school’s calendar to ensure no disruption to students.
A single diesel school bus is estimated to emit about 1.6 MtCO2e each year. With one electric bus operating for over a year, another to be put in use soon, and a plan to replace the full fleet of 26 full-size, 8 half-size buses, and 12 vans, the city expects to reduce emissions from school transportation by more than 65 MtCO2e each year. The city’s public charging stations have so far been estimated to have helped avoid 11.5 MtCO2e in local emissions.

The solar project at Beverly High School and Beverly Middle School is projected to offset approximately 4,137 MtCO2e per year. Since buildings account for almost half of the city’s total greenhouse gas emissions, more than any other sector, the city has focused on reducing school building emissions since Beverly became a state-designated Green Community in 2011. At that time, schools accounted for 40 percent of the total municipal electricity usage and 67 percent of municipal gas usage. In ten years, emissions from school facilities have been cut by 21 percent from approximately 4,400 MtCO2e (2009) to under 3,500 MtCO2e (2019).

Beverly is the first municipality in the U.S. with an all-electric school bus using vehicle-to-grid (V2G) technology to send electricity back to the grid from the bus batteries during peak demand periods. The city’s first two e-buses were procured through a leasing agreement with Highland Electric Fleets that aligns lease payments with the current operating budget expenditures for diesel buses. Twenty Beverly Public School staff have participated in a day-long professional development program on the electric bus initiative, as part of a grant secured by the city’s project partner, with a goal of incorporating hands-on EV lessons into student curriculum.

Beyond its significant carbon mitigation, the Green Schools Program also includes climate education. In 1981, Beverly High School was one of 8 sites in the U.S. that President Carter chose to install a 100 kW ground-mounted solar array. The array is among the longest-standing in the U.S. It has provided and, with its planned 1.5 MW replacement, will continue to provide opportunities for on-site renewable energy education to students.

At the time of purchase, the city’s first electric school bus cost approximately 4 times that of a bus with a traditional diesel combustion engine. By assembling a patchwork of funding from the state (via Volkswagen Settlement funds), utility (through V2G payments), and quasi-public agencies, Highland Electric Fleets was able to purchase the buses and lease to the city for near cost-parity to a diesel bus. For the public charging stations, the city scheduled charging rates to cover its match for the hardware, networking costs, and maintenance warranties.

Starting with Beverly’s designation as a Green Community in 2011, the city has secured nearly $1.3M in state grants to help fund energy conservation measures at its buildings, including six school facilities. City partnerships have enabled other projects, such as the power purchase agreement with a solar developer to develop the 4 MW school-based solar arrays.

Replacing diesel- and gas-powered vehicles with tailpipe-free vehicles immediately reduces harmful air pollutants such as particulate matter, nitrogen oxides, carbon monoxide, and volatile organic compounds. Further, Beverly residents and businesses increasingly have many more options for charging their EV vehicles at municipal lots close to downtown amenities.

The focus on schools particularly has helped advance the city’s goal of carbon-neutrality by mid-century, while at the same time providing Beverly youth the opportunity to experience and learn about local energy projects. And, Beverly’s growing electric bus fleet provides a quiet school commute for public school children, free of diesel’s harmful air pollutants.
Large City Honorable Mentions
Population Over 100,000

Anaheim Mayor Harry Sidhu
Henderson Mayor Debra March
New York City Mayor Bill de Blasio
Orlando Mayor Buddy Dyer
Reno Mayor Hillary Schieve
San Antonio Mayor Ron Nirenberg
San Diego Mayor Todd Gloria
Anaheim Mayor Harry Sidhu

Electric Vehicle Ride Sharing Pilot Program

Anaheim’s Electric Vehicle (EV) Ride Sharing Pilot Program provides rebates to Multi-Family Accommodation (MFA) sites within Low Income or Disadvantaged Communities (LIDAC) that host and provide resident access to on-site EV’s. Each MFA site is eligible for rebates to cover the cost of up to two (2) EV’s and the cost for up to two hundred (200) licensed drivers for a maximum of twenty (20) hours of EV usage per driver per year. Annually, APU is budgeting for up to five (5) MFA sites.

EVs are readily available to the general population. However, those in LIDACs are often unable to access EVs due to cost and charging availability, and they tend to experience a disproportionate amount of air quality issues near high traffic areas. Access to clean, sustainable transportation is a growing priority for residents at MFA sites. Providing access to EV ride sharing transportation, especially for last mile destinations, is an innovative way to assist communities in need of transportation support and cleaner air.

Development of a program that provides rebates to both residents and MFA property owners as a singular program with many moving parts proved challenging to develop while maintaining the needed program benefits and protecting Anaheim from undue liability. Various city departments collaborated with local property contacts such as asset managers and affordable housing developers, all with a common goal to support the disadvantage communities where transportation may be limited.

This is a newly developed program that was launched in Q2 of 2020. Since program inception, one affordable housing property has partnered with a rideshare service to receive two EVs to be utilized by their 140+ licensed drivers. In addition, a senior living center is in the process of completing their commitment to receive two EVs and ten EV charging stations. Three additional properties have expressed interest in the program and are working to receive their own EVs for residents. By providing residents of these five properties with access to the program, it will be equivalent to replacing 10 combustion vehicles with EVs, which equates to an estimated 480 metric tons of carbon dioxide equivalent that will be removed annually.

Disadvantaged Communities in the Southern California region experience a disproportionate amount of air quality issues which are exacerbated by internal combustion engines as a result of their adjacency to freeways (according to the CalEPA). This Program provides a unique solution where residents within Anaheim’s LIDAC’s gain access to EVs to reduce vehicle pollution and provides an opportunity to educate residents on the value and benefits of EVs. It also aligns with a September 2020 California mandate that by 2035, all new cars and passenger trucks sold will be zero-emission vehicles.

This 3-year pilot program is budgeted at $300,000 annually and funded by California Air Resources Board’s (CARB) Low Carbon Fuel Standards (LCFS) funds. As a low carbon transportation fuel producer, the City of Anaheim’s Public Utilities Department is an active participant in the LCFS program and generates credits that are monetized for the benefit of current and future EV drivers.

This is a new pilot program that launched in the second quarter of 2020. The city anticipates benefits for the community to be:

- Provides MFA locations with the ability to provide residents with access to clean and affordable EV transportation;
- Enhances ability of residents to carpool for work and meet family medical or educational needs;
- Reduces limited parking concerns;
- Reduces vehicle emissions and thereby improves local air quality; and
- Educates customers on sustainability, fuel cost savings, as well as the reliability and usability of EVs for daily use.
The City of Henderson’s Sustainability Action Plan is organized around key environmental themes. The three goals established for energy were to increase energy efficiency and reduce electricity and natural gas use in new and existing city infrastructure, increase the use of renewable energy in city operations and throughout the community, and reduce emissions throughout the community by offering sustainable options for development projects.

Maintaining the community’s health and prosperity and widely acclaimed quality of life requires wise management of natural resources and protection of the quality of environment. Sustainability considerations are integrated into the way the city does business through efforts to continually improve the efficiency of its operations. Proactive implementation of energy efficiency initiatives began in 2009 and continues today, both within city operations and in the community. A progressive approach to decarbonization of the power portfolio has also been undertaken.

The “Great Recession” and associated reduction in tax revenues, followed by the explosive growth that Henderson experienced, challenged the city to design and implement programs that realized both cost savings and emissions reductions. The city’s historic focus on operational efficiency and innovation overcame these challenges.

The city has reduced its estimated greenhouse gas emissions from its electric purchases by 43 percent, or roughly 29,000 tons of GHG, since 2005; it will further reduce emissions as the city completes its transition to renewable energy. This reduction exceeds the U.S. target established for the Paris Climate Agreement and was achieved over a period in which the population increased by 33 percent. Looking forward, a 2018 agreement with the local utility will transition 100 percent of the city’s non-utility electrical load to solar resources to be commissioned in southern Nevada in the next three years. This substitution of renewable energy will complement existing renewable sources and result in most of the city’s energy purchases being from solar, wind and hydropower.

Henderson achieved outstanding results through a diligent, sustained incremental approach to reducing electricity and natural gas consumption and proactive energy sourcing strategies. This success was driven by an organizational culture that prioritizes efficiency and encourages innovation.

In addition to the city’s direct investments, which have been sustained over time through use of the cost savings generated, funding has been leveraged from an American Recovery and Reinvestment Act grant and rebates from the local electric utility (NV Energy). Energy Savings Companies (ESCOs) have also been employed in the design, retrofitting and implementation of a number of energy efficiency conservation measures; their compensation was directly linked to the energy cost savings realized. For the private sector, the city has implemented a property assessed clean energy (PACE) program to make this innovative financing mechanism available for energy efficiency and renewable energy improvements in our commercial sector developments.

The city’s sustainability program has not only significantly reduced energy consumption and dependency on fossil fuels, it has also resulted in major savings in terms of the costs of city operations borne by residents and businesses. City leadership, working with the local utility to gain greater access to renewable energy, has helped accelerate the pace of change, thereby making these power sources more accessible to residential and commercial customers in the region. The net result is a continuing reduction in the city’s contribution to global warming, less air pollution locally, and maintenance of a low property tax burden.
Climate change is already impacting daily life in New York City. The NYC Climate Resiliency Design Guidelines (the “Guidelines”) prepare the city’s public projects for future extreme weather events and the other impacts of climate change by establishing a consistent approach for utilizing forward-looking climate change data in design. In March of 2021, New York City passed Local Law 41 (2021) to launch a five-year pilot program of the Guidelines and the development of a resiliency score that will ensure city capital projects are built to stringent resiliency standards. This will be the first multi-hazard climate design mandate in the United States.

Rising seas, higher temperatures, and extreme rainfall are already damaging our built environment, affecting our residents and are projected to significantly worsen in coming decades. The city’s capital assets will be exposed to increasing levels of risk, jeopardizing the ability for the city to reliably deliver services to its residents and businesses. The city’s $116 billion, 10-year capital investment program does not currently factor future-looking climate change projections into the design of buildings, infrastructure, and landscapes. The city has taken steps to mitigate these risks, and since 2016, the Mayor’s Office of Climate Resiliency and city agencies have co-developed and published Climate Resiliency Design Guidelines, which establish a citywide approach to applying future-looking projections to the city’s capital investments. Over the next five years, the Guidelines will be applied to current design projects and result in a resilient design mandate for all capital construction via a resiliency score.

The Guidelines represent a fundamental shift in building and infrastructure design and mark a critical transition from a paradigm dependent on historic climate data to one that harnesses the power of future-looking projections. Even with the most comprehensive and localized data, predicting future climate comes with an inherent level of uncertainty. The city has engaged with the NYC Panel on Climate Change, a Mayor-appointed scientific advisory panel, to incorporate peer-reviewed, hyper local projections that represent the best available science in the development of the Guidelines to minimize uncertainty and risk.

The Climate Resiliency Design Guidelines function at the intersection of sustainability and resiliency. The Guidelines encourage the use of resilient design solutions that also advance sustainable practices, such as the use of solar and back up battery storage, electric vehicles, and green/vegetated surfaces. By applying the Guidelines across the city’s capital spending, public investments will be resilient to a changing climate and advance sustainability goals, including GHG reduction.

Most design guidance for climate change is single hazard, focused on individual risks such as sea level rise or heat waves. The Guidelines and associated resilient design mandate will create a template for increasing climate-change preparedness on a municipal level. Additionally, the Guidelines advance sustainability strategies that also increase the resiliency of the city overall – for example, by incentivizing the installation of green roofs for stormwater management, the city is reducing urban heat island effect as a result of the increased vegetation.

City funding is being used to procure a technical consultant to support city agencies’ application of resilient design during the program. A core outcome of the five-year program is to quantify specific costs and benefits associated with resilient design, and demonstrate return on investment.

City agencies provide critical services for New Yorkers: from affordable housing, to roads and sewers, to public schools, these public projects provide the foundation for life in NYC. By starting with capital projects in a resilient design mandate, the city is setting an example in climate change preparedness and ensuring that city investments last for their entire intended lifespan. Equity is also a core value of the program, and it specifically allocates resources to environmental justice areas. Forty percent of the initial projects are to be located in environmental justice areas, thus driving investment in resilient and sustainable design to the most vulnerable populations.
In 2021, the City of Orlando – in partnership with the Orlando Utilities Commission (OUC) – completed installation of 100+ new public EV chargers at 33 locations in the city, including various parks, parking garages, public venues, neighborhoods and senior centers. Each location has at least one ADA-accessible EV charging station. This expansion is integral to the city’s climate goals, better positioning the city for the forthcoming electric mobility transition, as well as to encourage adoption to improve air quality and shore up local resilience.

In Orlando, city leaders recognize that the future is electric, and they want to be prepared for the inevitable transition as well as empower it. Electric powered mobility has become an increasingly viable and beneficial strategy to reducing emissions from the transportation sector due to technological advancements, declining battery costs, and cleaner electricity generation nationwide. It also provides additional benefits including direct economic savings for drivers, elimination of tailpipe emissions and improved public health, reduced noise pollution. In 2017, transportation surpassed the power (electricity) sector, becoming the largest contributor of greenhouse gas (GHG) emissions in the U.S. The total life cycle greenhouse gas emissions (including manufacturing) are substantially lower for EVs. During their use phase with Florida’s current electricity grid mix, EVs emit 63 percent less greenhouse gas emissions (GHG) per mile. Expanding charging infrastructure is a core strategy of the city’s forthcoming “E-Mobility Roadmap” and essential to the city’s goals to reduce emissions to net-zero by 2050.

Expanding access to Electric Vehicle Supply Equipment (EVSE) is a critical component to readying the city and its residents, and ensuring chargers become more convenient across all communities. The infrastructure complements the city’s goal to fully transition its own municipal fleet and its partner initiatives with OUC such as OUCharge It, an Electrified Dealers program that equips salespeople with knowledge and tools to sell EVs; an electrified rental car program for tourists – leveraging the city’s role as the most frequented travel destination in the globe; and a Ride and Drive marketing campaign and incentive. In August 2021, the City of Orlando also enabled an EV Readiness Code for all new construction projects in the city to ensure a minimum level of readiness for EVs and equitable access to EV charging for all residents.

In planning, mapping the placement of new stations was critical. The intent was to ensure that publicly-accessible chargers were installed equally throughout the city’s footprint. Needs remain to educate community members on these assets, as well as to gather their feedback on additional resources and solutions to drive cleaner and greener mobility. In addition, the city faced issues around planning for ADA accessibility, which the city addressed and enabled through accessible EV spaces in all 33 locations. Since installation, some other challenges – such as vandalism – have arisen at a few of the charging stations. The Green Works team is working with Community Center managers to quickly report any issues and address promptly.

The City of Orlando utilized its utility’s “Charge-It program” and leveraged its capital improvement budget for infrastructure, implementation, network services, and O&M costs of new EVSE charger deployment on public property. To complement these efforts, further funds from the state’s Volkswagon settlement will support a forthcoming DC charging hub with 22 DC Fast charging stations in downtown and help accelerate the roll-out of electric buses in the city’s downtown circulator fleet, Lymmo.

This project was launched with the intention of readying the city for the future. The visibility and accessibility of these stations will support the growing share of EVs in the local marketplace, while spurring further adoption: their presence serves as a signal for the changing transportation landscape as well as beacons of the city’s forward-thinking approach to community assets that support our climate goals.
In July, 2021, the city launched real-time energy use and emissions tracking from operations, which also includes frequent fuel tracking data, with a local company, Ledger 8760, Inc. (Ledger). The company enables its customers, including the City of Reno, to track and reduce their emissions, synthesize Scope 1, 2, and 3 emissions, support sustainable operations, build resiliency, and guarantee both transparency and accuracy in environmental reporting through the implementation of a cutting-edge emissions and greenhouse gas tracking platform. The culmination of the information will be made available to the public to monitor via a regularly updated dashboard. The City of Reno will be the first American city to pioneer real-time energy tracking and related emissions to help curb climate change.

Most cities that report their greenhouse gas emissions do so on an annual basis through third party reporting platforms. Additionally, data on direct emissions such as driving; electric grid-related emissions such as turning on a light; and indirect emissions off the grid are often reported by way of different methods in different places. As a cost conscious city, receiving a bill 30-45 days after incurring the cost was not meeting our fiscal sustainability goals.

The primary challenge with establishing our emissions tracking system was cost, including justifying the need for the software. Staff first joined the State Climate Strategy Greenhouse Gas Emissions Working Group and then began conversations with Ledger. Later, staff prepared internal guidance and marketing material and involved internal stakeholders such as the City Manager and IT Staff. By the time the contract went before the Reno City Council, the message and need was clear and concise.

The program will reduce emissions because it is directly related to the Paris Climate Agreement and its emission reduction targets. During onboarding, the city was able to see anomalies at some facilities and correct any issues right away, leading to reductions in energy use.

Ledger will also collect live energy and emissions data – using tracking standards set by the Intergovernmental Panel on Climate Change – from all public facilities in Reno and Washoe County as well as from certain state facilities, including the Capitol, Legislative Building in Carson City and certain Las Vegas facilities including the Department of Motor Vehicles office on Flamingo Road and Grant Sawyer State Office building. This makes it the first city, county, state partnership to track emissions, energy use and cost, and fuel use in near real time.

The program was funded in the first year using funds the city set aside from other energy efficiency projects. The funds came from rebates from projects, as well as rebates from demand response programs the City participates in. For example, the City received a rebate in excess of $10,000 from a large lighting retrofit project.

Better data will help inform proactive policies that make the most sense while pursuing the Paris emission reductions. Those decisions could include retrofitting buildings, expanding electric vehicle fleets, developing more solar energy or adding additional renewable generation. All of which, at the very least improve local air quality and empower us to direct funds to more vulnerable populations in our community who need it most.
The Mayor’s Youth Engagement Council for Climate Initiatives (MYECCI) was established to empower San Antonio’s young leaders with the resources to become effective advocates in their community. There is a strong focus on engaging youth of color and students that have been historically underrepresented in the environmental movement. Led by the Office of Sustainability, this program is an essential part of a multi-pronged climate education platform developed with a goal of reaching carbon neutrality by 2050.

Education and empowerment were identified as major mitigation and adaptation strategies within San Antonio’s Climate Action & Adaptation Plan (CAAP). “Empowering our youth is one of the most important steps we can take to address the climate crisis,” said Mayor Ron Nirenberg, “harnessing the creativity, brain power and energy of students who live in our community means that they can help craft solutions for their future in San Antonio.”

To help meet the city’s greenhouse gas emissions reduction goals, the Mayor’s Youth Engagement Council is providing a platform for youth to actively engage in the civic process and invest in the future of their city. The MYECCI has cross-collaboration with two other adult advisory committees tasked with helping to prioritize implementation of the CAAP. The Climate Equity Advisory Committee and the Community and Technical Advisory Committee will benefit from the voices of the youth council, perhaps the most important stakeholder in climate action and adaptation initiatives.

Recruiting diverse representation through purely digital outreach proved challenging in a city of 1.4 million residents, since the networks traditionally used to notify students about opportunities were largely altered due to remote school and the global pandemic. The initial cohort is demographically diverse after additional targeted recruitment was deployed to ensure deeper representation from BIPOC and low-income neighborhoods.

The MYECCI launched with 35 area youth, representing each City Council district and 23 different schools, including public, private, charter and homeschool. Moreover, the move to remote learning due to the pandemic has provided an opportunity for greater inclusion. Meeting virtually allows deeper and broader participation by eliminating transportation and scheduling barriers, as well as the opportunity to interface with a larger pool of subject-matter experts. For the 2021-2022 academic year, 37 youth were selected, and they will be paired with community-based mentors in their field of interest to collaborate with students on community impact projects.

The MYECCI is financed by a grant from the Hollomon Price Foundation, facilitated through San Antonio’s participation in the Bloomberg Philanthropies American Cities Climate Challenge. A true public-private partnership, a local educational non-profit organization operates the program with assistance from city government staffers. In the summer of 2021, a portion of the funding supported six paid summer internships for students to work with green professionals in the private and public sectors. The interns worked in the Office of Sustainability, Office of Historic Preservation, World Heritage Office and partner organizations including the San Antonio River Foundation. In addition, they participated in expanded opportunities facilitated by program administrator EcoRise and presented “Climate Change Education and Equity: the Youth Perspective,” at the national US Green Building Council Green School Conference.

To understand how local actions influence the greatest global challenge of our lifetimes, students are researching the United Nations Sustainable Development Goals and analyzing how they relate to issues in their communities and schools. Students will recommend prioritized climate action policy in the areas of housing and transportation; biodiversity; infrastructure and energy; and community health and food security. The youth are encouraged to make connections with local policymakers around environmental justice, poverty, historical redlining and gentrification, and how education, especially for women, can begin to help mitigate historic injustices while representing their communities.

The MYECCI will be able to continue due to an additional grant by the Hollomon Price Foundation. It is a major initiative of the City of San Antonio’s multi-faceted climate education and empowerment program.
San Diego Mayor Todd Gloria

Climate Equity Index

San Diego’s unique Climate Equity Index (CEI) measures relative access to opportunity and vulnerability to climate risks for residents within each of the city’s census tracts. The CEI was developed in a community-driven process that considered environmental pollution, health outcomes, climate change impacts, and socioeconomic indicators. It enables the city to identify communities that are most vulnerable to the detrimental effects of climate change, known as Communities of Concern (CoC). The CEI has been incorporated into initiatives that directly reduce greenhouse gas emissions (GHG) and focus immediate action and investment in CoCs.

In implementing its Climate Action Plan (CAP) and other environmental initiatives, the city recognized the importance of equitable sharing of the benefits and burdens of climate actions among all San Diegans. While there are tools and metrics available to determine components of climate equity – environmental pollution, health outcomes, socioeconomic data – none of them account for the full spectrum of factors necessary to inform prioritization of equitable climate action. The city identified this need as integral to the successful implementation of our CAP.

The development of the CEI required input from communities who have historically been left out of the conversation. To address this, the city facilitated a community-led process to create dialogue and public trust. The city established a Climate Equity Stakeholder Working Group (ESWG) to build consensus on decisions like the definition of ‘Climate Equity,’ development of the CEI framework, and implementation recommendations. Staff engaged community-based organizations that serve CoCs around this shared vision of climate equity.

The CEI provides an understanding of which census tracts face the greatest threats from climate change impacts and the most barriers to full enjoyment of the benefits of GHG emissions reductions. To put this information to work to ensure equitable funding priorities, Mayor Todd Gloria and the City Council created the Climate Equity Fund (CEF), an annual appropriation that invests directly in CoCs as identified by the CEI. This provides the city with a dedicated funding stream to support projects like neighborhood sidewalks, local parks, and pedestrian corridors that increase quality of life while reducing GHG emissions.

The CEI’s identification of CoCs and dedicated funding through the CEF is an innovative approach for connecting climate goals, community engagement, and funding resources. This community-driven process brought together voices often left out of decision-making, shifting power to the community and establishing a shared decision-making model for the development and measurement of climate equity. It is the first tool of its kind and is easily replicated for other jurisdictions.

The CEI is a low-cost effort with high return. The city hired a Climate Equity Specialist to lead this initiative and expand capacity and knowledge for meeting climate equity goals. Staff and third-party support from an existing consulting contract facilitated the creation of the ESWG, collected data from local, state, and federal government sources, and developed the CEI.

The city has seen how community participation in both the CEI and the first year of the CEF increased awareness and interest around addressing equity in our historically underserved communities. By identifying relative access to opportunity, the City of San Diego has made more informed decisions and more effectively engaged residents. The city allocated approximately $5,000,000 in the first year of the CEF. The CEI’s engagement process continues to be utilized to bring voices to the table for policy development, including the update of the CAP and housing affordability initiatives.
Small City Honorable Mentions

Population Under 100,000

Issaquah Mayor Mary Lou Pauly
Salem (MA) Mayor Kimberley Driscoll
San Leandro Mayor Pauline Russo Cutter
White Plains Mayor Thomas Roach
In April 2021, the City of Issaquah passed an Electric Vehicle (EV) Charging Ordinance that requires EV infrastructure in most new construction and substantial retrofits. The ordinance requires a certain percentage of parking spaces to have EVSE (Electric Vehicle Supply Equipment) or be EV-ready, depending on the type of building.

The full requirements of the ordinance are summarized in the table below:

<table>
<thead>
<tr>
<th>Use</th>
<th>EVSE</th>
<th>EV-Ready</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Multifamily and Townhomes</td>
<td>10%</td>
<td>30%</td>
</tr>
<tr>
<td>Existing Multifamily and Townhomes – Substantial Improvements</td>
<td>10%</td>
<td>20%</td>
</tr>
<tr>
<td>New Nonresidential</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Existing Nonresidential – Substantial improvements</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>New Paved Surface Parking Lots and Parking Garages</td>
<td>5%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Transportation is one of the biggest sources of greenhouse gas emissions in Issaquah. The Issaquah Office of Sustainability identified the lack of EV charging stations as one of the biggest barriers to EV acquisition. Thus, the city saw the need to increase EV charging stations in most new buildings, especially in residential buildings, in order to reduce its greenhouse gas emissions.

One of the biggest challenges the city faced is a statewide law that bans local jurisdictions from making changes to the statewide small residential building code. Due to this law, the EV ordinance was required to exempt single-family homes and multifamily homes that fall under the statewide definition (e.g., 1-2 stories tall). Despite this limitation, the city worked to include all buildings that fall outside the state definition, and the city plans to add EV infrastructure requirements once the state amends the law, which is expected to be around 2024.

In 2017, transportation accounted for 38 percent of community-wide emissions. This ordinance will encourage the growth of EV ownership in Issaquah, leading to a reduction of greenhouse gas emissions.

Issaquah’s EV ordinance is one of the strongest in Washington state and it leads with equity in how it is applied to affordable housing. Affordable housing buildings have to comply with the ordinance, but they are permitted to reduce structured parking, total minimum parking, and/or reduce landscaping in order to achieve cost neutrality. This will increase access of EV charging without adding costs to the tenants or burdening the affordable housing organization.

The installation of EV infrastructure will be funded by the building developers. Staff resources and regional partnerships were used to research the policy, do outreach to the community and stakeholders, and ensure passage of the ordinance.

This EV Charging Ordinance will increase the quality of life of the surrounding community by making clean transportation more accessible. The ordinance will also reduce costs in the long run, because installing EV infrastructure during construction is 2-8 times cheaper than retrofitting an existing building. An increased number of EV charging stations will encourage more community members to switch to EVs, which will lead to cleaner and healthier air and reduce greenhouse gas emissions, leading to better public health outcomes.
The City of Salem, in partnership with the City of Beverly, conducted a two-year internal and external planning process to create *Resilient Together*: a joint Climate Action & Resiliency Plan. The final plan focuses on seven plan elements: Energy, Buildings & Development, Infrastructure, Mobility, Natural Resources, Public Health & Safety, and Solid Waste.

There are more than 70 short- and long-term actions throughout the plan elements for the two cities to implement in the next 30 years, with the opportunity to update the Plan intermittently once overall emissions reduction goals in both cities are achieved. The main goal of *Resilient Together* is to be more aggressive than the state’s current goal of net zero emissions by 2050. The cities have already begun implementing several actions through local planning, policies, partnerships, and grant applications since the release of the final plan in June 2021.

Climate change is a global and local concern. It is already occurring at the local level, and the impacts are severe. This plan was necessary to guide the City of Salem in addressing its own effects on the environment and to begin the process of mitigation and adaptation. The city is also aware that low-income and historically disadvantaged communities are suffering the worst impacts due to historical and ongoing disparities in living conditions, housing, healthcare, economic opportunity, and other forms of institutional racism. As such, the city prioritized its outreach and engagement efforts to these communities, especially in Salem’s Environmental Justice communities, representing about 41 percent of the population.

The *Resilient Together* planning process took place in June 2020 – July 2021. This occurred amid a global pandemic, and the team faced several challenges when it came to conducting a thorough community outreach and engagement campaign. With the help of consultants – Kim Lundgren & Associates (KLA) – both cities were able to implement innovative engagement solutions including: an online survey and discussion board platform; online focus groups with renters, commuters, faith-based organizations, and community leaders; a large focus on social media and a monthly newsletter to community members who signed up on a city website. Through these techniques, the cities were able to reach over 10,000 Salem and Beverly residents, homeowners, and business owners.

The planning process included a Greenhouse Gas Inventory Report with a baseline year of 2018 that helped determine the priority actions to implement first (in the buildings and transportation sectors, which are the highest GHG emitters). Now that the plan has been released, the city is beginning to search for opportunities to fund these actions, prioritizing those that are in the Energy and Mobility sections of the plan, to help reduce building and transportation sector GHG emissions.

Throughout the planning process and community engagement efforts, both cities created strong partnerships and connections with local and regional groups, non-profits, and community members that were not present before. The 40+ member Climate Action Advisory Committee (CAAC) supported the development of the plan. The members came from a broad range of sectors and provided new insights that the municipal and consultant team could not have done alone. Overall, these new partnerships and the city’s innovative outreach efforts created a better sense of trust between the community and local governments that is helping improve the overall quality of life for those that live, work, and visit Salem.
San Leandro Mayor Pauline Russo Cutter

NorCal Resilience Network

The City of San Leandro partnered with the NorCal Resilience Network and other Bay Area cities to offer a pilot eight-month leadership training program for community members to catalyze “resilience hubs.” Existing trusted community-serving facilities can become resilience hubs by increasing their adaptive capacity and augmenting their building systems, such as with uninterrupted power.

The training teaches these community partners what they may need to upgrade at their site in order to reduce emissions and be prepared for climate events such as wildfire smoke or extreme heat. The development of a program curriculum specific to the greater Bay Area with local speakers allowed for greater partnership building, collaboration with existing sites, and responsiveness to local needs. Thus far, the Resilience Hub program has been able to engage with over 275 community participants, including 49 government staff.

Resilience hubs center equity by getting services and programming to hard-to-reach communities through organizations for and by those communities. With limited resources in local governments, building the capacity of community partners in this training program and strengthening their ability to respond to climate events will help the overall community meet their needs.

There were some communication challenges working with community partners and some requests that came late were unable to be met. Having clear expectations and responsibilities for the government partners early on will help the partners set aside staff time and resources for participation. Ideally, in the future, such requests can be better anticipated for participants and partners. Participation recruitment was also challenging during COVID; stipends for participants may help in the future.

Although emissions were not yet directly reduced, program participants will identify site projects to work on following the program conclusion and these projects will result in emissions reduction (e.g. installing solar panels, rainwater barrels, etc).

The program – funded by a $15,000 grant from the Urban Sustainability Directors Network – is the first in California to work collaboratively with community partners to train and build capacity around climate adaptation as resilience hubs. This allows greater partnership building and leveraging of existing resources to scale up climate action. Once resilience hub sites are established in San Leandro, partners will be able to upgrade their sites, reduce emissions and costs, and better respond to resident needs.

The training program has increased climate awareness and built relationships among participants, while also strengthening ties between the participants and their city government. Increased collaboration between agencies and community organizations will make future project implementation smoother and faster. Knowing that there are other great organizations in the area helps to foster collaboration and peer-to-peer learning between them.
The City of White Plains’ Community Solar Project will triple solar production in Westchester County and provide a financial benefit to low-income households. White Plains entered into a 25-year lease agreement with DSD Renewables for city-owned properties. The city derives annual payments of approximately a million dollars a year in lease payments. The community solar model produces solar energy that goes back into the grid and allows residents who subscribe to the program to receive a credit on their bill every month.

The climate crisis is now, municipal budgets are stretched tight, and low-income households are disproportionately impacted by utility costs and power grid failures. At the intersection of these challenges, the city’s community solar solution achieves greater sustainability, secures budget relief and provides meaningful community benefits.

For many years, the city sought to undertake a large-scale solar project but the low price of energy produced by the New York Power Authority (NYPA) and purchased by the city made such a project difficult to justify economically. Now, with NYPA’s consultation, and changes in the New York Public Service Commission’s incentive allowances, the city has been able to achieve this goal. The city leveraged its relationship with NYPA to fast track the process and to analyze and choose the developer for the project.

This program will generate almost 7 megawatts of power annually, enough energy to power about 4,800 homes per year. This equates to a reduction of 46,400 tons of carbon dioxide, equivalent to removing 8,900 passenger cars from the road.

In assessing how this program is outstanding or innovative, the city considers these program features as particularly noteworthy:

- Maximizing partnerships: city partnered with NYPA, DSD Renewables, and Blue Wave for community outreach.
- Investing in the future: city is earmarking a portion of the revenue from the project for future environmental initiatives.
- Producing and Storing clean energy: city added a battery storage component to one of the sites, a feature that normalizes the energy going back into the grid thereby smoothing peak usage and allowing the city to purchase 40 percent of gross offtake at a 10 percent discount, providing the city with an energy credit.
- Advancing social justice: low-income households suffer disproportionately from climate change, the impacts of high utility costs, and the consequences of a vulnerable power grid so that by affirmatively promoting the program to vulnerable and underserved communities the city is providing a social justice component to the project.

This initiative is a revenue-producing, multi-site project that requires no capital outlay by the city. Key Public Works leaders and staff supervised and coordinated the project, acting as liaisons between NYPA and the chosen Developer, DSD Renewable Energy. Other than staff time, the project resulted in zero cost to the city. The community solar model produces solar energy that goes back to the grid and allows residents who enroll in the program to receive a credit on their bill every month.

White Plains Mayor Thomas Roach

Community Solar Project