



THE CITY OF PHILADELPHIA  
— OFFICE OF —  
SUSTAINABILITY

# OFFICE OF SUSTAINABILITY ACCOMPLISHMENTS

KENNEY ADMINISTRATION:  
2016 - 2023

## LETTER FROM THE DIRECTOR

Dear Friends,

When Mayor Kenney began his first term in 2016, our office established a vision in its *Greenworks: A Vision for a Sustainable Philadelphia* report to create a city where all Philadelphians can enjoy and thrive in the benefits of sustainability, from improved public health to a clean environment, regardless of zip code. Over the past eight years, we listened to Philadelphians feeling the increasing effects of climate change. It was clear that we needed to not only do our part as a municipality to reduce carbon emissions, but also grow and evolve our team, programs, and partnerships to better address local environmental challenges. We needed to center the communities at the front lines of climate change in decision-making to create a more equitable and resilient future for our city. In this report, we reflect upon our progress and accomplishments from 2016 to 2023.

In 2016, during a time of federal inaction on climate change, Philadelphia joined local governments to take the lead. We announced a bold commitment to cut municipal carbon emissions in half by 2030 by investing in cleaner energy sources, building improvements, and innovative projects that pair cost savings and energy savings. Today, we are proud to have achieved a 44% reduction in municipal carbon emissions.

With a cleaner energy grid and citywide building energy policies in place, we are also making strides to decarbonize across Philadelphia. In 2017, we joined cities around the world to sign the Mayors' Pledge, committing to reduce citywide carbon emissions by 80% and move to 100% renewable energy by 2050.

Since 2016, the administration and our office has acknowledged that Philadelphia's neighborhoods experience exposure to environmental harms and access to environmental benefits in inequitable ways. Over the course of the Kenney administration, we have expanded our scope to better prioritize the most climate-impacted and historically marginalized communities in our work.

To this end, our office has expanded our community-facing programs and opportunities for residents and community organizations to shape our work. Through new initiatives in climate resilience and environmental justice, including the resident-led Philadelphia Environmental Justice Advisory Commission and Eastwick: From Recovery to Resilience, we have engaged residents to share their visions for a more resilient and equitable city and guide environmental planning and policymaking for their communities. Meanwhile, we are bringing a climate justice lens to our efforts to decarbonize our buildings through a strategy to address energy poverty by improving access to clean and affordable energy for our city's most overburdened communities.

As we head into a new year and welcome a new administration, we look back in awe and with gratitude for the communities, departments, organizations, and stakeholders who work alongside us in advancing our shared vision toward a more sustainable, just, and resilient city.



**Elizabeth Lankenau, AICP**  
INTERIM DIRECTOR OF SUSTAINABILITY

# TIMELINE

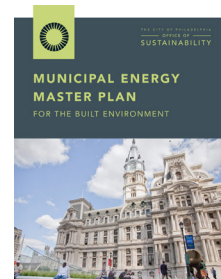
2016



- ▶ Launched [Greenworks: A Vision for a Sustainable Philadelphia](#), an updated framework for a sustainable, equitable, and energy efficient city.
- ▶ The [Food Policy Advisory Council](#) (FPAC) released the [Good Food Catering Guide](#) to help consumers find businesses offering healthy, fair, sustainably-sourced, and locally-owned foods.
- ▶ Released [Growing Stronger: Toward A Climate-Ready Philadelphia](#), a compilation of climate risks and resilience strategies for departments that manage City services and infrastructure.

2017

- ▶ Joined the [Climate Mayors' commitment](#) to uphold the climate goals of the Paris Climate Agreement.
- ▶ Introduced the [Municipal Energy Master Plan \(MEMP\) for the Built Environment](#) to achieve four major 2030 municipal climate and energy goals.
- ▶ Launched the [Zero Waste and Litter Plan](#) to achieve zero waste by 2035.



2018

- ▶ Selected as a winning city in the [Bloomberg American Cities Climate Challenge](#) for innovative and ambitious climate action plans.

2019

- ▶ Released [Beat the Heat Hunting Park: A Community Heat Relief Plan](#), a community-driven, equity-focused approach to community climate planning in Hunting Park, one of the city's most heat vulnerable neighborhoods.
- ▶ Enacted the [citywide plastic bag ban](#) to reduce plastic waste and litter.



2020

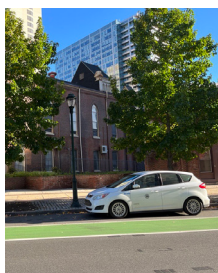
- ▶ Appointed the City's first Chief Resilience Officer.
- ▶ Launched the [Philadelphia Gas Works \(PGW\) Diversification Study](#), in partnership with PGW, to better understand pathways for the municipal utility and its workforce to thrive in a low carbon future.

- ▶ Enacted the [Building Energy Performance Policy \(BEPP\)](#) to require large buildings to undergo regular tune-ups that optimize energy systems and lower their citywide carbon footprint, energy use, and utility costs.
- ▶ Convened an Environmental Justice Working Group to outline a plan for the City's environmental justice (EJ) work and a summit of thought leaders to understand the EJ landscape in Philadelphia.



2021

- ▶ Committed to achieve carbon neutrality by 2050.
- ▶ Released the [Climate Action Playbook](#), detailing the steps Philadelphia is taking to reduce emissions and adapt to a hotter, wetter future.
- ▶ Partnered with the Office of Fleet Management to launch the [Municipal Clean Fleet Plan](#), outlining strategies to transition to clean and electric vehicles.
- ▶ Completed Philadelphia Museum of Art guaranteed energy savings project to drive major energy saving improvements.



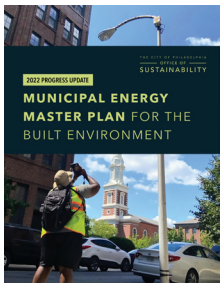
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2022

- ▶ FPAC engaged more than 500 Philadelphians who either lead hunger relief work in their communities or attended the [public meetings](#) hosted by the Urban Agriculture Plan and Anti-Hunger’s Community Conversations to develop and present FY23 Policy Recommendations to the administration.
- ▶ Convened the City’s first resident-led Philadelphia Environmental Justice Advisory Commission (PEJAC) formally established through [Executive Order 2-23](#).
- ▶ Launched the [Eastwick: From Recovery to Resilience](#) Place-based Initiative with support from the City’s Operations Transformation Fund to provide a whole-of-government response to flooding and quality-of-life challenges in Eastwick.
- ▶ Broke ground on the Adams Solar project, a large solar array project set to generate more than 20% of the electricity used by municipal buildings. The project is on track to be completed and generating power by the end of 2023.
- ▶ Held Steering Committee roles that incubated and supported the technical needs for the [first Urban Agriculture Plan](#).
- ▶ Released the [2022 update to the Municipal Energy Master Plan](#), showing a significant 44% reduction in municipal greenhouse gas emissions.
- ▶ Updated the Waste Reduction Action Plan for continued policy and programmatic action to continue the City’s advancement towards zero waste.



Photo: Energix Renewables



2023

- ▶ Launched, in partnership with PEJAC, the first round of the [Community Resilience and Environmental Justice Grant Fund](#), distributing \$10,000 grants to 15 community-serving organizations.
- ▶ Began developing Philadelphia’s Energy Poverty Alleviation Strategy to reduce energy burden and promote the adoption of clean energy initiatives in the city’s income-constrained households.
- ▶ Launched the Environmental Justice and Climate Resilience Committee, an interagency group of City departments and offices.
- ▶ Updated the [Energy Efficiency and Environmental Design](#) ordinance, setting a higher building performance standard for all new municipal construction and major renovation projects.
- ▶ Joined partners to kick off the [Philadelphia Streetlight Improvement Project](#), the largest energy conservation project in city history.
- ▶ A [2023 study](#) of the post-ban impacts revealed that the bag ban led to a significant drop in single-use plastic bag use.
- ▶ Received notice of a \$450,000 award under FEMA’s Flood Mitigation Assistance (FMA) program to develop an Eastwick community-driven flood resilience strategy.
- ▶ Awarded a \$1M EPA Environmental Justice Government-to-Government grant to advance environmental justice work throughout City policies and programs.



Photo: Jared Piper



NOW

## Municipal Clean Energy and Achieving Carbon Neutrality

One of the first and most expansive objectives set by the City in 2016 was to reduce municipal carbon emissions by 50% by 2030. Since then a cleaner energy grid and continued investments in municipal buildings and operations have contributed to a 44% reduction in municipal carbon emissions, well ahead of schedule to meet the 2030 goal.

Major achievements include the launch of the the Adams County Solar project, which will meet more than 20% of municipal buildings' energy needs by the end of 2023, the development of the Municipal Clean Fleet Plan (2021) with recommendations for a cost-effective and successful transition to clean and electric vehicles, and major energy retrofits to iconic buildings like the Philadelphia Museum of Art.

**The City has cut municipal emissions by 44% since 2016, well ahead of schedule to meet the 2030 goal of a 50% reduction.**

### SPOTLIGHT

## INNOVATIVE MUNICIPAL ENERGY PROJECTS



Photo: Jared Piper

### Philadelphia Streetlight Improvement Project

Following approval by Philadelphia City Council, the budget-neutral [Philly Streetlight Improvement Project](#) (PSIP) kicked off in July 2022 with a citywide streetlight audit. The project will replace 130,000 high-pressure sodium streetlights with long-lasting, energy efficient LED lights. It will connect new and existing LED streetlights to a remotely-controlled lighting management system, providing pedestrians, cyclists, and drivers with better nighttime visibility and improving response times when outages occur. PSIP is projected to reduce municipal carbon emissions by at least 9% – greater than any other municipal energy efficiency project.

### Philadelphia Museum of Art Energy Performance Contracting

The Philadelphia Museum of Art (PMA), one of the City's largest energy users, completed a major retrofit in early 2021. The public-private partnership between the City and PMA, the Philadelphia Energy Authority, and Johnson Controls Inc. produced a multifaceted transformation that will lower the museum's carbon emissions by 2,400 MT of CO<sub>2</sub>e, water use by 1.2 million gallons, steam use by 16,000 MMBTU, and will save enough electricity to power 437 average U.S. households for a year. The subsequent energy savings in Year One exceeded expectations by more than 50% and saved the PMA close to \$1.2 million.

**The PMA project will save enough electricity to power 437 average U.S. households for a year.**



Philadelphia has **one of the highest energy burdens in the U.S.**, disproportionately impacting communities of color. The **median energy burden of Black households is 53% higher** than that of non-Hispanic white households.

## Citywide Building Decarbonization

With more than 70% of citywide greenhouse gasses attributable to the built environment, the City has focused on building decarbonization with a series of policy interventions that can significantly lower carbon emissions, increase energy efficiency, and reduce utility costs.

In 2019, Mayor Kenney enacted the citywide Building Energy Performance Policy requiring large commercial buildings to implement low cost adjustments in their buildings to lower their carbon emissions, increase energy efficiency, and reduce utility costs. To better understand the city's carbon footprint, OOS conducted a citywide greenhouse gas inventory of 2019 data and found that carbon emissions dropped by 20% between 2006-2019, with a large portion of the reductions coming from a cleaner energy grid.

Energy burden is defined as the percentage of gross household income spent on energy costs. To address equitable decarbonization in the residential sector, in 2023 OOS began developing Philadelphia's Energy Poverty Alleviation Strategy to reduce residential energy burden and promote the adoption of clean energy initiatives in the city's income-constrained households.

## SPOTLIGHT

### PARTNERSHIP WITH NEIGHBORHOOD ENERGY CENTERS

Neighborhood Energy Centers (NECs) are a unique network of community-based organizations working to support residents who struggle with high energy burden. In 2022, with support from the Operations Transformation fund, the Office of Sustainability and partner organization the Energy Coordinating Agency launched the NEC Outreach Campaign to strengthen the ability of the NECs to do more effective outreach and engagement. This campaign was designed to reach more people in historically marginalized and vulnerable communities and is part of a broader strategy to ensure equity and racial justice in the city's clean energy transition.



Through an NEC Outreach Campaign, **40% of the NECs experienced an increase** in the number of resident visits and services delivered.

## ENVIRONMENTAL JUSTICE AND CLIMATE RESILIENCE: Community-led visions of an equitable and resilient future

While the City works towards a lower carbon future, it also must address the environmental stressors already being felt by Philadelphians, especially those from historically marginalized and disproportionately impacted communities.

During the Kenney administration, OOS strengthened its ongoing work in food justice and launched two new programs, climate resilience and environmental justice, which center meaningful resident involvement in government decision-making to advance community-led visions of an equitable and resilient future.

OOS believes that environmental justice, food justice, and climate resilience are key programs to create a city that is healthy and free of environmental harms for current and future generations, and during this administration, OOS made significant progress towards furthering these goals.

### Environmental Justice

The Office of Sustainability defines environmental justice as the equitable distribution of environmental benefits and burdens, redress of past harmful environmental policies and practices, and meaningful involvement of residents – particularly those most impacted and that have been historically marginalized – in decision-making. We understand that in environmentally just cities, one's race, socioeconomic status, and/or zip code are not predictors of their health outcomes or exposure to hazards. OOS's Environmental Justice team implements a citywide strategy to realize this vision of environmental justice.

- In 2022, OOS established an environmental justice staff team; Executive Order 2-23 established the resident-led Philadelphia Environmental Justice Advisory Commission (PEJAC).
- In 2023, OOS launched a Community Dialogue Series organized in partnership with the resident-led Philadelphia Environmental Justice Advisory Commission, Department of Public Health, and state and federal partners to engage residents.

In 2023, OOS was awarded a **\$1 million federal grant** to support institutionalizing environmental justice into City policies and practices.



Photo: Albert Lee for City of Philadelphia

## SPOTLIGHT CREJ GRANTS FUND

OOS recognizes that some residents and community organizations have been working for decades in Philadelphia to address environmental injustice. These individuals and groups also hold more expertise than OOS does regarding their communities. Therefore, a key part of OOS's strategy is resourcing and supporting this leadership and expertise within communities.

In 2023, OOS launched the Community Resilience & Environmental Justice (CREJ) Grant Fund in partnership with the Philadelphia Environmental Justice Advisory Commission to support community groups working to ensure that all Philadelphia residents have a livable community, free of environmental toxins and hazards. Supported by the Philadelphia City Fund and William Penn

Foundation, the Fund provides resources to frontline communities experiencing environmental injustice to advance their vision of an equitable and resilient future.

The inaugural 15 community group awardees each receive \$10,000 to advance their visions of environmental justice:

- Projects include initiatives to increase air quality monitoring, greening, heat and flood resilience, food sovereignty, and more.
- More than 50% of grant projects will be youth-led.

## SPOTLIGHT FOOD JUSTICE AND THE FOOD POLICY ADVISORY COUNCIL

Abundant, affordable food and a sustainable food system are central to the health of all the city's residents and a key part of OOS's vision for an environmentally just Philadelphia. In support of that, OOS serves as the City liaison to the Food Policy Advisory Council (FPAC). FPAC is a diverse group of stakeholders from the local food system that develops policy recommendations promoting a fair, healthy, sustainable, and just food system.

Over the past eight years, FPAC has provided policy expertise and testimonies supporting anti-hunger programs, urban agriculture, and more. Additionally, the Council has developed a variety of resources for residents and businesses:

- The **Good Food Catering Guide** connects consumers and City departments to businesses offering fair, healthy, sustainable and local foods.
- The **Guide to Fair Labor for Good Food Businesses** aggregates resources for creating a better working environment for those employed in food-related businesses.





## Climate Resilience

Climate change is complex and impacts Philadelphia in many ways, but in simple terms, it is making the city hotter and wetter, and storms are becoming more extreme. These impacts make it harder for residents – especially those in historically marginalized and disproportionately impacted neighborhoods – to recover and bounce back. Through policies, partnerships, planning initiatives, and investments, OOS is working with residents and technical experts to mitigate risk and design solutions to address the environmental hazards unique to each neighborhood. The Climate Resilience team works at different scales, from coordinating citywide resilience strategies to developing

place-based approaches to resilience planning in flood-prone areas like Eastwick.

In 2020, Mayor Kenney appointed the City's first Chief Resilience Officer to oversee progress towards a more resilient and equitable city. The Climate Resilience team has been coordinating the Flood Risk Management Task Force, updating the City's Climate Resilience plan and collaborating with state, local, and federal partners to draw on technical expertise and hold community flood resilience information sessions for residents.



## SPOTLIGHT EASTWICK PLACE-BASED STRATEGY

As a focus of OOS's resilience strategy, OOS created a place-based team to work with environmental justice communities facing disproportionate impacts from climate change. The place-based team currently works in Eastwick, a neighborhood in Southwest Philadelphia that has experienced repetitive, catastrophic flooding on top of chronic and systemic environmental and racial justice challenges. Climate change is only making these problems worse.

In 2022, OOS launched *Eastwick: From Recovery to Resilience* to connect City, State, and Federal resources to address flooding, environmental justice, and quality of life challenges in Eastwick. OOS is working with neighborhood residents, government partners, and other stakeholders to develop flood resilience strategies guided by the experiences of flood survivors.

To better meet the needs of residents, OOS partners with community-based organizations to build capacity and shift decision-making power to community members through the development of a long term community-driven Flood Resilience Strategy. Since the program's launch, OOS has hosted town halls and organized Eastwick Community Day, a community and flood resources fair that engaged 200 residents and 50 nonprofit representatives. Through this partnership, OOS hopes to empower and support Eastwick's vision for a flood resilient future.



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