

#GreenworksPHL



GREENWORKS

A VISION FOR A SUSTAINABLE PHILADELPHIA

Meeting of the Minds

"Responding to Waves of Extreme Events: Long-Term and Short-Term Sustainability and Resiliency from Philly & Fayetteville"

April 15, 2020



Philadelphia is Leading on Climate Action

Mayor Kenney committed Philadelphia to meeting the goals of the Paris Climate Agreement, including reducing carbon emissions 80% by 2050 and moving to 100% renewable energy. Climate resiliency will be a priority in the 2nd term.

Climate change is a multiplier of both risks- poverty, violence, health outcomes- and opportunities- equitable growth, economic opportunity. That is the lens through which we approach our work.





Bright Solar Futures

First Career & Technical Education (CTE) Solar Program in Pennsylvania

- Received approved by PA Dept of Education, first class of 10th graders starts Fall 2020
- Solar Lab at Frankford High School

Off-site CTE Training

- 9 current CTE students
- Oct 2019 – May 2020 classroom training (184 hrs) and summer internships

Opportunity Youth

- 16 PowerCorpsPHL Fellows
- Jan – May 2020 classroom training (680 hrs) and summer internship
- 18-30 year-old Opportunity Youth



ECA Lab Summer 2019.
Credit: Philadelphia Inquirer





PGW Business Diversification Study

Philadelphia Gas Works (PGW) is the largest municipally-owned gas utility in the country employing 1,600 workers and maintaining over 6,000 miles of gas mains and service pipes to deliver 78 billion cb ft of gas to 500,000 customers each year.

How the utility can provide necessary services in a lower-carbon future?

New energy sources/applications

- Renewable Natural Gas (RNG)
- Hydrogen
- Geothermal
- Compressed Natural Gas (CNG) Vehicles
- Combined Heat and Power (CHP)
- Backup fuel applications
- Fuel oil conversions
- Steam loop conversions
- Heat pumps and other electrification services
- Liquefied Natural Gas (LNG) expansion

New services and business models

- Community solar developer or program administrator and/or solar installer
- Energy storage and microgrid services
- Energy Service Company
- Smart city technologies service provider
- Energy efficiency and weatherization service providers
- Strategic electrification services and appliances





Building Energy Performance Policy

- Builds off the success of the City's Energy Benchmarking program, in law since 2012
- Requires non-commercial buildings over 50,000 square feet to demonstrate achievement of a high performance building standard or
- To perform a tune-up on their building every five years
- Estimated to cut carbon emissions by 200,000 metric tons and create 600 local jobs
- First compliance period in 2021



WHY IS HUNTING PARK SO HOT?



Redlining and Heat Inequity

The heat vulnerability index shows that across the city, Black, Hispanic, and other residents of color are more likely to live in the hottest neighborhoods. Racial inequity in heat exposure is in part a result of exclusionary policies like redlining, which have played a major role in shaping where people live in Philadelphia.

Find the report at
www.phila.gov/green

WHY IS HUNTING PARK SO HOT?

More than 75% of land cover in Hunting Park is buildings, roads, and paved surfaces compared to 52% in Philadelphia overall. In contrast, tree canopy is only 9%, compared to 19% in Philadelphia and 48% in neighborhoods like Chestnut Hill.

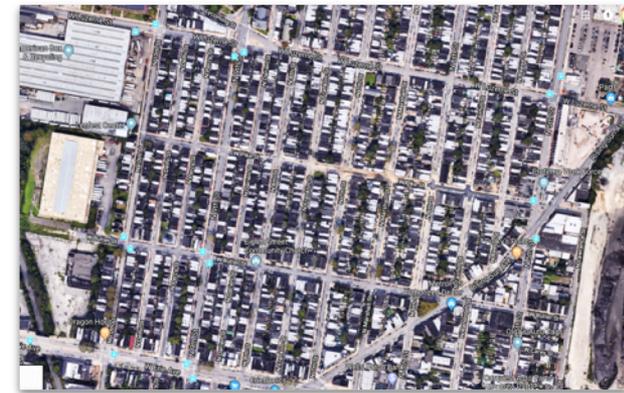
INDUSTRY



TREE CANOPY



BLACK ROOFS & DARK SURFACES



COMMUNITY-IDENTIFIED OPPORTUNITIES

GREENING & TREES

- More trees on residential blocks
- More trees and vegetation at industrial and commercial sites
- More gardens and green spaces
- Better lighting in the park
- Block clean-ups and dumping prevention



STAYING COOL IN PUBLIC SPACES

- A/C and fans in schools and rec centers
- A community heat relief network
- More bus shelters along popular routes
- Reroute truck traffic and prioritize electric bus routes in hottest areas

STAYING COOL & SAFE AT HOME

- Better access to AC units and fans
- Assistance with home energy repairs
- (LIHEAP) during summer months
- Block-level cool roof coatings
- Cool roof/pavement at industrial sites

THE CITY OF PHILADELPHIA
— OFFICE OF —
SUSTAINABILITY

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PHILADELPHIA

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