

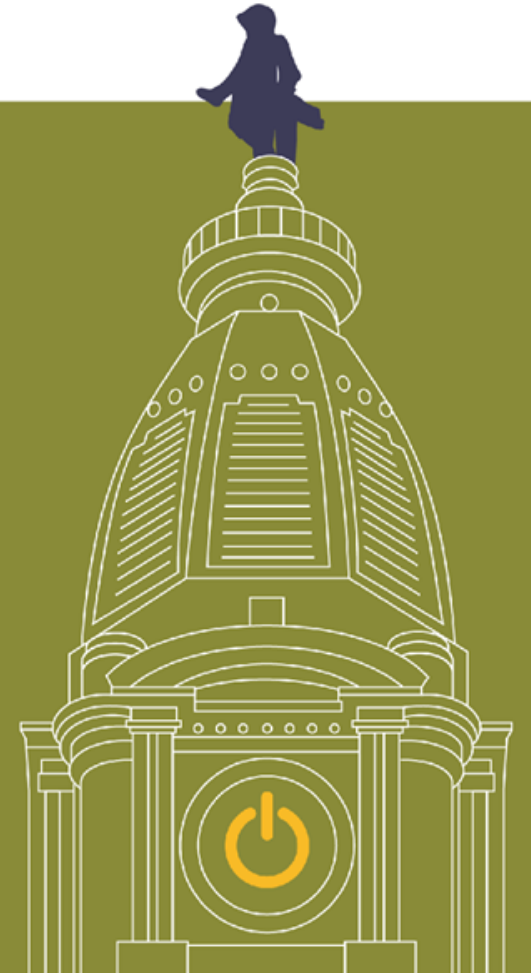


PHILADELPHIA
ENERGY AUTHORITY

PEA 2019 Year in Review

January 15, 2020

Emily Schapira, *Executive Director*



The Philadelphia Energy Campaign

- **\$1 billion investment over 10 years** in energy efficiency and clean energy projects, leveraging public and private dollars
 - **10,000 jobs**
- **Results from first 2 years:**
 - **\$101 million** in active projects
 - **984 total jobs**
- Many self-funding projects
- 2019 Annual Report in April 2020



What Happened in 2019

- Launched C-PACE
- Finished PPA contracting
- Prepared Streetlighting procurement
- Construction at 3 high schools nearly completed and finished contracting for the next 3
- Art Museum under construction
- Found working model for LMI solar
- Biggest round of Solarize Philly EVER!
- First Annual Philadelphia Solar Week in August
- 78,000 households enrolled in our W/S Protection Program
- Helped pass a slate of clean energy bills in City Council
- State approval for Bright Solar Futures!
- Trained more students and 10 internships
- Energy projects at the Curtis Institute and the Insectarium

Highlights

- C-PACE
- City Solar Rebate & other policy changes in 2019
- Solarize Philly & Bright Solar Futures
- Water and Sewer Line Protection Program



City & Schools

- **SDP EPC – Pilot**
 - 3 high schools, \$23M, major capital work (incl. boilers, windows)
 - 38% savings, nearly done with construction
 - Executed by NORESO
- **SDP EPC – GESA 1**
 - Awarded to Johnson Controls, contracting complete for first 3 schools (of 12). Construction begins this summer.
- **PMA construction**
- **Streetlighting procurement**
- **Solar PPA**

What is C-PACE?

Financing tool: Provides long-term funding (15-25 yrs) at low rates (5-8%) for energy efficiency, renewable energy, and water conservation projects

Creates measurable savings: Projects must result in energy savings or reductions in water usage for commercial properties

Through a special assessment: Repayment is through a special assessment similar to a property tax assessment

Why Does C-PACE Matter to GPAEE?

1

Complete more projects:

C-PACE can help close a funding gap for projects that otherwise would not move forward

2

Expand work with existing clients:

C-PACE can bring additional capital to expand scope of existing projects

3

Increase consulting work:

All C-PACE projects require an Energy Conservation Measures Survey

Sample C-PACE Projects



Energy Efficiency

- LED lighting
- Building controls
- HVAC upgrades
- Green roofs



Renewable Energy

- Solar
- Fuel cells
- Other renewable generation facilities



Water Efficiency

- High-efficiency equipment
- Condensate water reuse
- Low-flow fixtures
- Stormwater management

**Full list of eligible projects in the Program Guidelines
available at PhiladelphiaCPACE.org**

What Makes C-PACE Special?

C-PACE Element	Why It Matters
Covers 100% of eligible hard & soft costs	Limited upfront cash for new project
Term of up to 30 years	Long-term repayment can match project payback
Energy and water savings often exceed annual repayment amount	Positive net operating income for borrower
Under certain leases, building owner can pass through repayments to tenant	Addresses energy usage split incentive issue
Rates are generally low	Displaces expensive mezzanine debt and equity
Financing is tied to property, not borrower	If sale of property occurs, C-PACE obligation transfers with the sale

New Policy in 2019 (besides building tune-ups)

- City Solar Rebate
 - \$0.10/watt for commercial, \$0.20/watt for residential
 - Retroactive to July 1, 2019
 - Opening Q1 2020, administered by PEA on behalf of the Office of Sustainability
- Solar Canopies by right
- Capped solar building permit fees at \$200



Solarize PHILLY

A CITYWIDE
PROGRAM TO HELP
ALL PHILADELPHIANS

GO SOLAR AT HOME

SIGN UP **BY SEPTEMBER 30** at
solarizephilly.org



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@solarizephilly



Largest Solarize Campaign in the U.S.



Contracts Signed as of
Today

650+



Contracted Solar
Capacity

3.1 MW



\$ Invested in Philly's
Clean Energy Economy

**\$10
million**



Households Signed up

6,005



Direct Jobs Created

52*

***as of December 2018**



Philadelphia Solar Week, Aug 12-18



Solarize
PHILLY

GO
SOLAR
NOW

solarizephilly.org



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Philadelphia Solar Week is Aug 12-18

Bright Solar Futures

- School District received approval to offer the first Solar CTE Program in PA, one of the first in the nation.
- Laid groundwork for PEA's selection for \$1.25 million award by U.S. Department of Energy.
- 70 students trained in clean energy basics (120 - 184 hour curriculum).
- 17 students placed in relevant paid internships.



Bright Solar Futures Program Overview

Offered at Frankford High School starting Fall 2020, 1,080 hours, 10th to 12th grade

- Solar Installation, Design, and Sales
- Electricity Basics
- Building Auditing and Weatherization
- Construction Safety

Preparation for industry certifications:
NABCEP Associate, OSHA10, CAST,
PA Driver's License



*ECA Lab Summer 2019.
Credit: Philadelphia Inquirer*

Implementation Partners



What you can do (training)

- Host a field trip
- Host an intern over the summer (both high school and out-of-school young people available)
- Hire out of Bright Solar Futures
- Join our Occupational Advisory Committee to help us develop industry-appropriate curriculum
- Help fund the Frankford HS Solar Lab
- Speak to our class about your career and company





Water and Sewer Line Protection Program

- 78,000 customers
- \$6M+ in avoided consumer cost
- 75% of claims to date serviced by M/W/DBE contractors
- Only 8% of claims had a PWD NOD
- Projected to save PWD >\$120k annually



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