The Philadelphia Energy Campaign: Building a Robust, Equitable Clean Energy Economy

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Overview

- Philadelphia & the PEA story
- Solar Means Jobs: Building a diverse workforce
- Housing Interventions: energy insecurity, public health and safety, and reducing displacement
- Moving forward
Philadelphia: The Poorest Big City in America

- Pre-COVID, 25% live below the poverty line, incl. 1 in 3 children
- Consistent Clean Air Act non-attainment in low-income neighborhoods, 4th highest rate of asthma in US
- Residents below 30% AMI pay 23% of their income to utilities (energy burden)
- >50% of African-American households at any income level, and >40% of all renters face energy insecurity* at least once a year

*Energy Insecurity: forgoing food or medicine to pay for utilities, setting the home to an unsafe or unhealthy temperature, or at risk of utility shut-off
CLEAN, EFFICIENT, AFFORDABLE

energy as a tool for impact

ECONOMIC development

Projects that move the needle on carbon reduction are bringing established companies, investors and entrepreneurs to the city.

CREATING jobs

Statewide, the number of clean energy jobs already outpaces the number of fossil fuel jobs.

ALLEVIATING poverty

Reducing the energy burden for Philadelphians means homes that are safe, warm, healthy and affordable for the long term.

IMPROVING public health

In public buildings, schools, homes and businesses, clean and efficient energy is a vehicle for improving the health of our communities.
Philadelphia Energy Campaign
A 10-Year initiative to spur $1 Billion of investment and create 10,000 jobs

Highlights:

• 70MW solar PPA to procure 22% of City’s electricity
• $12MM project reduced energy consumption by ~25% at Philadelphia Museum of Art
• $50MM+ of school energy makeovers, incl. lighting, boilers, windows
• $10MM of residential rooftop solar contracted through Solarize program
• 85,000+ households enrolled in water and sewer protection program
• Launched C-PACE for C&I efficiency and renewables

<table>
<thead>
<tr>
<th>Year</th>
<th>New Project Investments</th>
<th>Jobs Created*</th>
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</thead>
<tbody>
<tr>
<td>Year One: 2017</td>
<td>$53 million</td>
<td>225</td>
</tr>
<tr>
<td>Year Two: 2018</td>
<td>$48 million</td>
<td>759</td>
</tr>
<tr>
<td>Year Three: 2019</td>
<td>$35 million</td>
<td>317</td>
</tr>
<tr>
<td>Total To Date</td>
<td>$136 million</td>
<td>1,301</td>
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*Direct, indirect, and induced jobs across 10-year Energy Campaign
Clean Energy Workforce Development (#SolarMeansJobs)
3 Rounds, Largest in the U.S.

- Contracts Signed as of Today: 654
- Contracted Solar Capacity: 2.8 MW
- $ Invested in Philly’s Clean Energy Economy: $10 million
- Households Signed up: 5,856
- Direct Jobs Created: 94
Bright Solar Futures: Workforce Training

- PowerCorpsPHL Solar Fellowship
  - 18-30-year-old Opportunity Youth
  - 2020 classroom training (680 hrs) + summer internship
  - Provided drivers’ ed for licensing & job placement, plus wraparound services

- First CTE Solar Program in Pennsylvania
  - Approved by PA Dept of Education, launched in September 2020 ($ available statewide)
  - Solar Lab at Frankford High School sponsored by PECO and Community Energy
  - Starts in 10th grade, 1080 hours of instruction over 3 years, 2 internships, career placement
Bright Solar Futures: Workforce Training

- **Curriculum Includes:**
  - Electricity Basics
  - Solar Installation & NABCEP prep
  - OSHA standards & certs
  - Weatherization & Energy efficiency
  - Drivers’ Licensing (where needed)

- **Career Paths:**
  - Solar installation, design, sales
  - Building trades apprenticeship
  - Utility line apprenticeship
  - Higher education (partnerships with CCP & Temple Univ.)

PowerCorpsPHL Fellows bending conduit, 2020 PC: Steve Fernandez
Philly’s Citywide Solar Training Consortium

- Citywide collaborative training model to match supply and demand for labor
- Designation of High Priority Occupation and demand creation through Solarize allowed for workforce training dollars to be committed to other training programs serving additional populations.
- **Bright Solar Futures** at scale will graduate ~60 graduates annually, 90+% students of color.
- Other labs: [OIC Philadelphia](#) focuses on adult trainees, graduating ~20 people/year; [Energy Coordinating Agency (ECA)](#) focuses on adults and returning citizens, capacity to graduate ~40 people/year. Add union trainees.
- Core strengths: Occupational Advisory Committee, siting training in transit-accessible minority-majority communities
Affordable Housing Restoration
to tackle energy insecurity, public health and safety, and reducing displacement
Philly’s Low-Income Housing Crisis

- Over 60,000 low-income owner-occupied homes in Philadelphia, many generational
- Poor housing conditions from lack of long-term maintenance contribute to negative health outcomes*, energy insecurity, displacement
- Local, State and Federal home repair programs bring significant dollars, but without systemic program coordination. “Maintaining poverty”
- **Goal**: to stabilize homes so they are affordable, healthy and safe for the long-term

*See research on Social Determinants of Health (SDOH)
The Built to Last Platform:
Layered, Coordinated Service Delivery+

Benefits Screening
- Identify eligible benefits
- Screen homeowners for utility, health, and City housing services
- Inter-agency data sharing -- protect personal info

Property Assessment
- Identify all home needs
- Eliminate referrals to multiple programs
- Match program services and funding to needs
- Inter-agency data sharing -- protect personal info

Construction Management
- Streamline delivery of multiple program services
- Shorten project timeline
- Address all major home needs
- Bring in external funding to fill service gaps
Built To Last Funding Needs

Average Home Improvement Costs*

Solar + Electric Conversion
$15K/home

Weatherize + Utility Services
$8K/home

Health
$10K/home

Basic System Improvements
$17K/home

* Not all improvements have existing funding sources.

70-80% of the cost of repairs can be covered by an existing program, properly ordered and layered.

But this is not a small problem. To reach 10,000 homes, we must invest $250MM+. 
Making DEIJ Actionable: Partner with Implementers and Bring New Resources to the Table
Solar as a tool for economic recovery, job creation, poverty reduction

• Solar installer was fastest growing occupation in the country in 2019, including in PA. (source)

• Rooftop solar creates the most jobs per dollar invested compared to other energy projects, according to ACEEE economic modeling in Philadelphia.

• Entry-level solar jobs do not require a college degree and pay a living wage.

• Solar is a lifeline for low- and moderate-income homeowners to take control of utility costs long-term, reduces energy burden, among other benefits.
Proposal: Solar Equity and Access Fees

• Offer utility-scale customers an opt-in (or require an opt-out) to an Equity and Access charge offered to utility-scale solar offtakers to support equitable access to rooftop solar and solar jobs.

• Creates long-term, sustainable funding source for programs like ours that require big hairy resources to match big hairy problems.

• Funds initiatives that are:
  • Increasing solar adoption in communities of color and LMI communities, and
  • Offering training pathways for people of color and people from LMI communities to enter the solar workforce.