

Program Mission Statement

The Philadelphia Energy Authority (PEA), through the leadership and support of City Council President Darrell Clarke, launched the Philadelphia Energy Campaign in February 2016 to create jobs, strengthen communities, cut energy bills and reduce Philadelphia's carbon footprint. The Campaign will leverage \$1 billion in public and private financing to invest in clean energy and energy efficiency projects in four key sectors.

The Campaign's \$1 billion investment over 10 years will go into energy efficiency and clean energy for City buildings, schools, low and moderate income housing, small businesses, and will create 10,000 jobs over 10 years, and support job training and local, inclusive hiring.

The Campaign seeks to preserve existing affordable housing, reduce household expenses for low and moderate-income residents, help small businesses keep their doors open, and support the City and School District to reduce costs, address deferred maintenance and invest in buildings across our city.

The Campaign will drive energy efficiency projects that will reduce building energy use by over 20%, collectively saving over \$200 million citywide.

The Campaign will reduce carbon emissions and other environmental pollutants, improve public health through better indoor and outdoor conditions, and support our City's efforts to mitigate and adapt to climate change.

PEA's core mission includes:

- Identifying, supporting and facilitating the most cost effective and environmentally-sound opportunities for the City of Philadelphia to reduce energy use and expense;
- Promoting and assisting the development of alternative sources of energy, benefiting the retention and development of a local workforce which is essential for the economic prosperity of the City; and,
- Educating Philadelphia's consumers (including residential, commercial and public sector audiences) regarding best practices and choices available to pursue common energy goals.

Low-income Community Definition & Eligibility

Ranges from 150% of Federal Poverty Level (FPL) to 120% of area median income (AMI), depending on program.

Target Sectors include: 55% Residential, 23% Small Business, 13% City Buildings, 9% Public Schools

Measures of Program Success

- Jobs created
- Households impacted
- Dollars saved
- Energy saved
- Solar deployed and generated
- Millions of dollars invested
- Contracts signed

Program Type

- Single family housing solar installations (including a pilot program to include low- and moderate-income households)
- Multifamily housing energy efficiency

Objective # 1: Solarize Philly

Objective Summary

Solarize Philly is a citywide program to help all Philadelphians go solar at home. The Philadelphia Energy Authority (PEA) launched Solarize Philly to make the process of installing solar as easy and affordable as possible, while also supporting solar training at the School District of Philadelphia and improving access to clean energy for all neighborhoods.

The objective is to Solarize 500 Philadelphia rooftops, more than doubling the number of solar installations in the city including 20% low-to-moderate (LMI) households.

Key Partners and Roles

Our team:

- Laura Rigell, Solar Manager
- Emily Schapira, Executive Director
- Ben Vila, Project Coordinator
- Intern support
- Consultant support

Partners:

- City Council – outreach and communication
- Neighborhood organizations, including the Energy Coordinating Agency's Neighborhood Energy Centers – intake for low to moderate program
- Solar States, KISS Electric, Moore Energy – solar sales and installation
- PECO – interconnection
- Department of Licenses and Inspection (L+I) – permitting
- Office of Sustainability – coordination with L+I
- CED Greentech – equipment distribution
- Financing partners for Special Financing Pilot – provide capital for LMI installations
- U.S. Department of Energy Solar In Your Community Challenge – seed funding and technical assistance

Action Steps to Reach Objective

Action Step	Date Start and End	Resources Needed	Resource Provider	Status	Success Indicators
Solarize Philly Phase 1					
1.1 Design program	February 20, 2017- April 27, 2017	Insights from local solar industry, legal counsel	Solar industry representatives, consultants, Pro-bono legal counsel	Completed	<ul style="list-style-type: none"> • Convened industry roundtable attended by over 20 participants
1.2 Select Phase 1-2 installers	April 27, 2017 - May 26, 2017	Consultants to design RFP	Solar in Your Community Challenge (SYCC) technical assistance	Completed	<ul style="list-style-type: none"> • Received 5 RFP responses • Selected 3 installers
1.3 Select Phase 1 equipment	May 16, 2017 – June 20, 2017	Consultants to design RFP	Solar in Your Community Challenge (SYCC) technical assistance	Completed	<ul style="list-style-type: none"> • Received 5 RFP responses • Selected 1 equipment distributor
1.4 Open enrollment for homeowners (Phase 1)	July 1, 2017 – October 31, 2017	Outreach budget Interns to do customer intake Installers to complete site assessments	PEA operating funds University intern stipends Installer operating funds	Completed	<ul style="list-style-type: none"> • 2,200 sign ups • 1,151 pre-screened and connected with installers • 219 contracts sent to customers
1.5 Permitting, installation, and interconnection support (Phase 1)	November 1, 2017 – June 30, 2018	Partnership with L+I and PECO	PEA operating funds PECO staffing	Completed	<ul style="list-style-type: none"> • Bi-weekly meetings scheduled with PECO for ongoing communication • 143 systems interconnected

Action Step	Date Start and End	Resources Needed	Resource Provider	Status	Success Indicators
Solarize Philly Special Financing Pilot					
2.1 Recruit LMI participants	November 1, 2017 – October 15, 2018	Outreach Partnerships and events	Energy Coordinating Agency, Neighborhood Energy Centers, Community Development Corporations, Neighborhood Action Centers SYCC seed funding	Completed	<ul style="list-style-type: none"> • 467 sign ups • 79 submitted eligibility application • 38 determined eligible
2.2 Identify LMI solar financing solutions and partner	November 1, 2017 – present	Consulting Legal advising Connections to prospective financial partners	SYCC Technical Assistance PEA operating funds	In progress	<ul style="list-style-type: none"> • Pro-forma, diligence write-up, and investor pitch deck developed and shared with potential partners • Likely partners identified, model refined
Complete LMI pilot sales, installations, and interconnection	NA	NA	NA	NA	<ul style="list-style-type: none"> • Completion of pilot sales
Solarize Philly Phase 2					
3.1 Select Phase 2 Equipment	February 16, 2018 – March 15, 2018	Consultants to design RFP	PEA operating funds	Completed	<ul style="list-style-type: none"> • Received 4 RFP responses • Selected 1 distributor

Action Step	Date Start and End	Resources Needed	Resource Provider	Status	Success Indicators
3.2 Open enrollment for homeowners (Phase 2)	April 20, 2018 – September 30, 2018	Outreach budget Interns to do customer intake Installers to complete site assessments	PEA operating funds University intern stipends Installer operating funds	Completed	<ul style="list-style-type: none"> • 2,083 sign ups • 1,151 pre-screened and connected with installers • 347 contracts sent to customers
3.3 Permitting, installation, and interconnection support (Phase 2)	October 1, 2018 - present	Partnership with L+I and PECO	PEA operating funds PECO staffing	In progress	<ul style="list-style-type: none"> • Bi-weekly meetings scheduled with PECO for ongoing communication • 78 systems interconnected
Solarize Philly Phase 3					
3.1 Select Phase 3 Installers	February 21, 2019 – March 25, 2019	Legal counsel	PEA operating funds	In Progress	<ul style="list-style-type: none"> • Received RFP responses • Selected installers

Objective # 2: Multi-Family Affordable Housing Efficiency Pilot

Objective Summary

Work with multi-family affordable housing developers to implement large-scale energy efficiency and health programs with a scalable model for auditing, engineering, data collection, financing, and measurement and verification. Scale to more than 500 large multi-family buildings in Philadelphia.

Key Partners and Roles

- PECO – Support of subcontractor and existing direct install program
- PGW – starting new pilot rebate program
- BlocPower – engineering and analysis, financing
- CMC Energy Services – implementation and audits
- Mission First Housing Group & Friends Rehabilitation Program – guinea pig buildings

Point of Contact

- Emily Schapira
- Alon Abramson
- Nancy Mifflin

Action Steps to Reach Objective

Action Step	Date Start and End	Resources Needed	Resource Provider	Status	Success Indicators
Identify partners	October 2016 – April 2017.	Seed funds from utilities, key partnerships, willing and interested property owners, PEA staff, patience	Existing PEA budget, PECO Act 129 low-income multi-family program, kind partners willing to wait to get paid, PGW multi-family pilot program	Completed	PEA engaged with interested property owners to identify suitable properties for the pilot in 2016. BlocPower was engaged in early 2017. PECO and PGW were solicited to participate in 2017.
Select buildings	April 2017	Seed funds from utilities, key partnerships, willing and interested property owners, PEA staff, patience	Existing PEA budget, PECO Act 129 low-income multi-family program, kind partners willing to wait to get paid, PGW multi-family pilot program	Completed	Friends Rehabilitation Program and Mission First properties were evaluated and 4 total high usage properties were selected with a total of 189 units.
Audit	May 9, 2017	Seed funds from utilities, key partnerships, willing and interested property owners, PEA staff, patience	Existing PEA budget, PECO Act 129 low-income multi-family program, kind partners willing to wait to get paid, PGW multi-family pilot program	Completed	BlocPower was able to utilize PECO and PGW's program implementation partner CMC Energy to conduct free energy audits.
Engineering and data collection	June 1, 2017	Seed funds from utilities, key partnerships, willing and interested property owners, PEA staff, patience	Existing PEA budget, PECO Act 129 low-income multi-family program, kind partners willing to wait to get paid, PGW multi-family pilot program	Completed	Engineering analysis was completed by BlocPower following the auditing step.
Financing and incentives	June 1, 2017 to November 2017	Seed funds from utilities, key partnerships, willing and interested property owners, PEA staff, patience	Existing PEA budget, PECO Act 129 low-income multi-family program, kind partners willing to wait to get paid, PGW multi-family pilot program	Completed	PGW earmarked funding in their multifamily pilot program for PEA's pilot. All owner costs were paid for directly with no finance needs in the first phase of the project.

Action Step	Date Start and End	Resources Needed	Resource Provider	Status	Success Indicators
Contracts signed	July 31, 2017	Seed funds from utilities, key partnerships, willing and interested property owners, PEA staff, patience	Existing PEA budget, PECO Act 129 low-income multi-family program, kind partners willing to wait to get paid, PGW multi-family pilot program	Completed	Contracts were signed for the first phase scope of work, but full Master Service Agreements were not completed until afterwards. This was an oversight that needs to be resolved in the next iteration of this program.
Phase I energy conservation measures	December 2017 – January 2018	Seed funds from utilities, key partnerships, willing and interested property owners, PEA staff, patience	Existing PEA budget, PECO Act 129 low-income multi-family program, kind partners willing to wait to get paid, PGW multi-family pilot program	Completed	Installation was substantially completed before the end of 2017 to meet the PGW incentive schedule. This forced the timeline to move rapidly and caused some design challenges.
M&V and analysis	January 2018 to March 2019	Seed funds from utilities, key partnerships, willing and interested property owners, PEA staff, patience	Existing PEA budget, PECO Act 129 low-income multi-family program, kind partners willing to wait to get paid, PGW multi-family pilot program	In progress	Data is being collected from the networked thermostats and boiler controls. This process has taken longer than anticipated and has set the original timeline back by a year.
Phase II energy conservation measures	January – May 2019	Seed funds from utilities, key partnerships, willing and interested property owners, PEA staff, patience	Existing PEA budget, PECO Act 129 low-income multi-family program, kind partners willing to wait to get paid, PGW multi-family pilot program	In progress	Final measure packages are being designed. One of the properties is in the process of being sold and the proposed measures will be implemented by the new owners, which has also complicated the process.

Action Step	Date Start and End	Resources Needed	Resource Provider	Status	Success Indicators
Evaluation and scale	July 2018 – May 2019	Seed funds from utilities, key partnerships, willing and interested property owners, PEA staff, patience	Existing PEA budget, PECO Act 129 low-income multi-family program, kind partners willing to wait to get paid, PGW multi-family pilot program	In progress	Following completion of the first phase of the program, PEA evaluated the process and outcomes and has been in the process of revising the service model to enable the program to scale.