

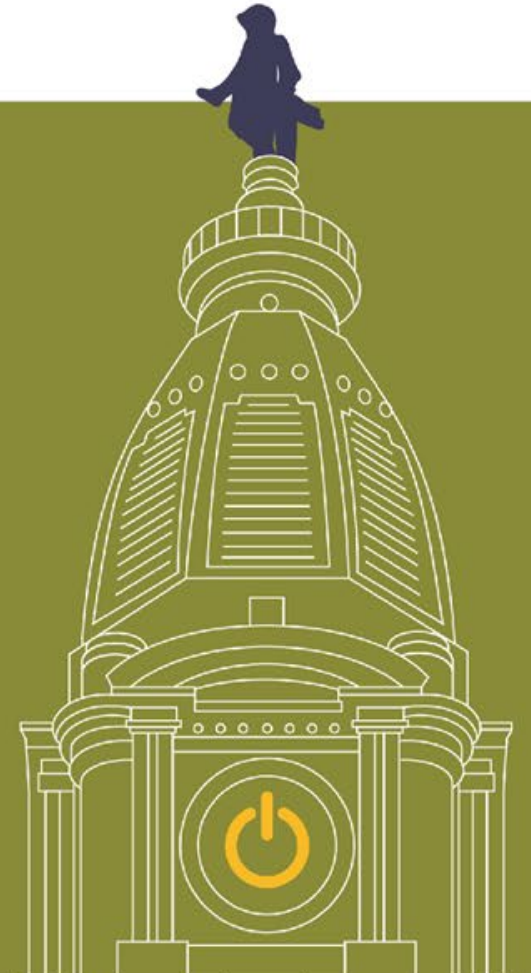


Board Update – Q4+ FY20

August 26, 2020

Emily Schapira, *Executive Director*

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RESOLUTION 08262020-03: ADOPTING RIGHT TO KNOW LAW POLICY AND APPOINTING OPEN RECORDS OFFICER

RESOLVED, the Board of Directors (“the Board”) of the Philadelphia Energy Authority (“the Authority”) adopts the Right to Know Law Policy substantially in the form attached hereto, and appoints Emily Schapira, Executive Director, as the Authority’s Open Records Officer, and Maxine Dixon, Program Coordinator, as the Authority’s Alternate Open Records Officer.

RESOLUTION 08262020-04: ADOPTING NEPOTISM POLICY

RESOLVED, the Board of Directors (“the Board”) of the Philadelphia Energy Authority (“the Authority”) hereby adopts the Nepotism Policy as attached hereto.

RESOLUTION 08262020-05: ADDING JUNETEENTH AS AN OFFICIAL OBSERVED HOLIDAY

WHEREAS, Juneteenth commemorates June 19, 1865, the date when Union troops arrived in Galveston Bay, Texas to ensure that slaves were freed. The troops arrived two and a half years after the Emancipation Proclamation was signed by President Lincoln, and

WHEREAS, Juneteenth is currently recognized as a state holiday or day of observance in 47 states and the District of Columbia, established in Pennsylvania as Juneteenth National Freedom Day on June 19, 2019, and established in the City of Philadelphia as of June 16, 2020 through Executive Order 4-20, and

WHEREAS, the Philadelphia Energy Authority is committed now and always to acknowledging and combating institutional and structural racism, and

WHEREAS, the recognition of Juneteenth is simply one step among many towards the aforementioned aim, and

WHEREAS, Black Lives Matter;

THEREFORE, BE IT RESOLVED, that the Board of Directors (“the Board”) of the Philadelphia Energy Authority (“the Authority”) amends the existing schedule of observed (paid) holidays appearing in the Employee Handbook to include June 19th, known as Juneteenth. Juneteenth is designated a paid holiday for all Authority employees and all offices shall be closed.

Q4 FY20 Programs Update

1

MUNICIPAL BUILDINGS



- Solar PPA COVID construction delay (ongoing negotiations)
- Streetlighting RFQ completed, RFP still under review

3

AFFORDABLE RESIDENTIAL



- Solar Savings Grant Program first contracts signed
- Built to Last gaining traction, Roadmap in development w/ Capital Access
- 87,000+ households enrolled in Water Sewer Program, adding new programs

2

K-12 SCHOOLS



- Construction beginning on GESA-II (3 schools), construction ongoing on GESA-I (3 schools), next 5 seeking approval this quarter
- Bright Solar Futures first class begins at Frankford HS (remotely) next week

4

SMALL BUSINESS



- Curtis Institute project moving forward
- First two C-PACE projects closed, one EE and one solar (\$2MM)

NEW PROGRAMS & TOOLS

- Completed City Solar Rebate FY2020
- On track to launch Philadelphia Green Bank in 2021
- Seeking federal stimulus, RGGI funding & industry partnerships for big dollar investments to fundamentally solve priority issues (incl. expanded workforce dev, Built to Last & scalable finance via PGB)

Solarize PHILLY

A CITYWIDE
PROGRAM TO HELP
ALL PHILADELPHIANS

GO SOLAR AT HOME

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



PHILADELPHIA
ENERGY AUTHORITY

@solarizephilly



SOLAR WEEK

AUGUST 2020

Learn more at solarizephilly.org

MONDAY 17	TUESDAY 18	WEDNESDAY 19	THURSDAY 20	FRIDAY 21
10-11:30am: <i>Solar 101: Everything you need to know to go solar during COVID-19</i>	10-11:30am: <i>Putting Philadelphia Back to Work: Solar as a Tool for Economic Recovery</i>	WEBINAR SERIES 10-11:30am: <i>Scaling Up to Combat Climate Change: PA's Growing Utility-Scale Solar Market</i>		9-11:30am: <i>Doing Solar Business in Philadelphia: Interconnection and Permitting Best Practices</i>
4-6pm: <i>Solarize Philly Office Hours</i>	4-6pm: <i>Solarize Philly Office Hours</i>	4-6pm: <i>Solarize Philly Office Hours</i>	3-5pm: <i>Solar + C-PACE Office Hours</i>	2-3pm: <i>Solar Week Keynote and Bright Solar Futures Graduation</i>
GET CREATIVE! Solar homeowners, share a video of your solar story. Youth, submit your artwork of the solar future. Prizes will be awarded to the top entries.			5-7pm: <i>Virtual Solar Home Tour</i>	3-4pm: <i>Bright Solar Futures: Career Panel</i>

Solarize Philly is an initiative of the Philadelphia Energy Authority and Philadelphia City Council.



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Council
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SoNo Project Announcement

Governor, City Officials Celebrate Completion of Solar Project To Power Yards Brewery, City Archives



“We know that clean energy creates jobs, and projects like the SoNo solar installation are putting people to work when Pennsylvania communities need it the most. I applaud the City of Philadelphia for creating models for solar deployment that can be replicated across the Commonwealth.” - Governor Tom Wolf



Credit: Solar States, 2020

Virtual Solar Home Tour



Solar Savings Grant Program

System Price			Sample SSGP proposal		
\$5,679					
Upfront SREC Purchase					
-\$2,250					
A Solar Renewable Energy Credit (SREC) is a certificate that you earn for every 1,000 kilowatt hours generated by your solar installation. PEA will pay you upfront for the SRECs that your installation is projected to produce over 15 years.					
Remaining Cost (NEIF Loan)	Fixed monthly loan payments	Total Loan Payments (including interest over 15 years)			
\$3,429	\$29	\$5,205			
The remaining cost must be financed through a subsidized 15-year loan at a 5.99% interest rate. Centennial Solar (a subsidiary of the Centennial Parkside Community Development Corporation) is issuing the loans, which will be serviced by the National Energy Improvement Fund (NEIF).					
Additional Benefits					
Biannual Maintenance Checks	System Repair Fund	System Removal Fund			

“The Solar Savings Grant Program made it possible to solarize my house, something that would have been financially out of my reach at this time. For me, going Solar is a critical and responsible step towards reducing non-renewable energy and combating climate change.”

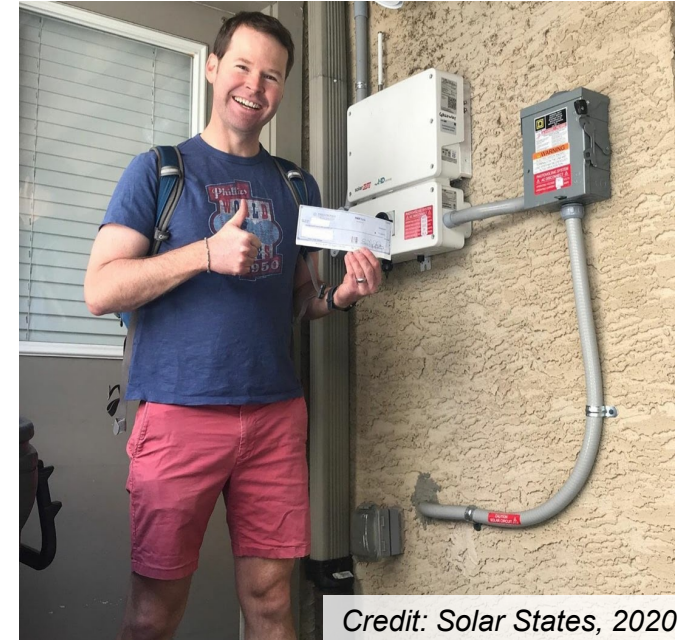
- Megan Biddle, first Solar Savings Grant Program participant to sign contract



Philadelphia Solar Rebate

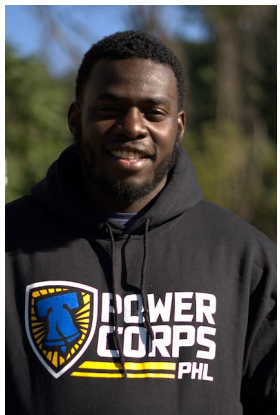
- 202 applications approved (Mar – June 2020)
- \$249,335 issued (fully subscribed for FY20)
 - 10% of funds issued to LMI households
- 32 applications on waitlist, to be processed if additional funds are made available

“We had been thinking about going solar for a long time, but the extra rebate finally made it seem possible financially. We wanted to act fast while the rebate was available.”
– FY 20 Rebate recipient

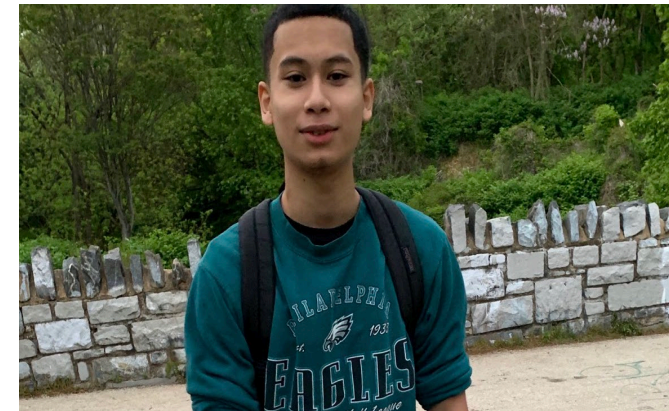
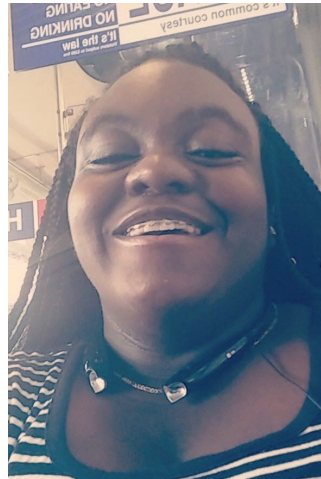
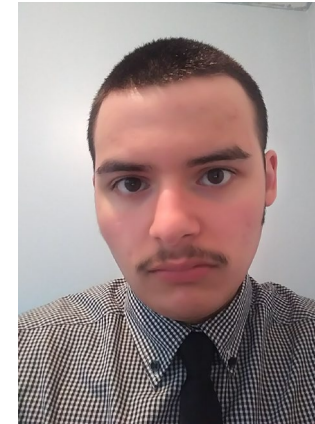


Credit: Solar States, 2020

Bright Solar Futures Graduates: PowerCorpsPHL Fellowship (680 hrs)



Bright Solar Futures Graduates: Work Ready Summer Program (120 hrs)



First CTE Solar Program in PA

- Teacher hired at Frankford High School
- Class to start Sept 9th with first cohort of 10th graders (Class of 2023)
- Virtual until at least November 17th, in line with District requirements
- Lab build-out in process





Water and Sewer Line Protection Program

- 87,000 customers
- \$11.2M+ in repair cost savings
- 73% of claims to date serviced by M/W/DBE contractors
- 7.5% of claims had a PWD NOD
- Projected to save PWD \$140k annually



AWR Contract Amendment

- Adding 5 new programs to existing contract
- Customers and Councilmembers have been asking for additional products

Product	Pricing	Coverage Limits & Benefits
Interior Electric	\$4.98	\$5,000 - repairs to the home's electrical system from the circuit breaker panel or fuse box to the switches and/or outlets
Gas	\$4.98	\$2,500 no wait - repairs to exposed interior gas lines as well as gas appliance shutoff valves and flexible connectors; defects in workmanship/materials & damage caused by normal wear and tear. INCLUDES annual in-home safety inspection of inside natural gas lines and connectors.
Surge	\$4.98	\$5,000 - electronics and appliances (incl. HVAC) that are damaged by a surge and need to be repaired or replaced.
ENERGY ESSENTIALS BUNDLE	\$11.98	Includes Interior Electric + Gas + Surge for a bundle price.
In-Home Clog	\$7.99	\$2,000 with \$25 per occurrence trip fee - Removal of clogs from internal drain lines, as well as clogs in sinks, tubs and toilets.
Water Heater	\$9.99	\$1,500 with \$25 per occurrence trip fee - Repair or replacement of gas, electric, propane, or fuel oil residential water heaters

RESOLUTION 08262020-06: AUTHORIZING AMENDMENT TO AMERICAN WATER RESOURCES CONTRACT ADDING NEW PROGRAMS

RESOLVED, that the Executive Director of the Philadelphia Energy Authority is hereby authorized and directed to enter into an amendment to the existing contract with American Water Resources substantially in the form attached hereto, which allows American Water Resources to provide additional home protection programs, and to take all administrative steps necessary and convenient to execute and administer these programs.

Housing Initiatives

- Built to Last: restoring safe, healthy, affordable homes for the long-term
 - Single-family low-income owner-occupied
 - Working with Capital Access to complete roadmap
 - On track for 2021 pilots for ~100 homes
 - Seeking ~\$1.6MM in funding for software and subsidies
- Multi-Family
 - IPC loan products (Navigator and Catalyst) – launching in September
 - Philadelphia BlocMaps (6 months development horizon)

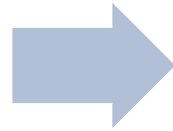
Built to Last Platform

Layered, Coordinated Service Delivery

Health	Safety	Pest Management	Home Repair
Exterior Lighting	Site Work	Energy Efficiency	Solar

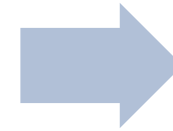
Benefits Screening

- ID benefits.
- Screen for owners who can receive home improvement services.



Property Audit

- ID all home needs at once.
- Eliminate referrals to multiple programs.



Construction Management

- Align service delivery.
- Shorten project timeline.
- Address all major needs.

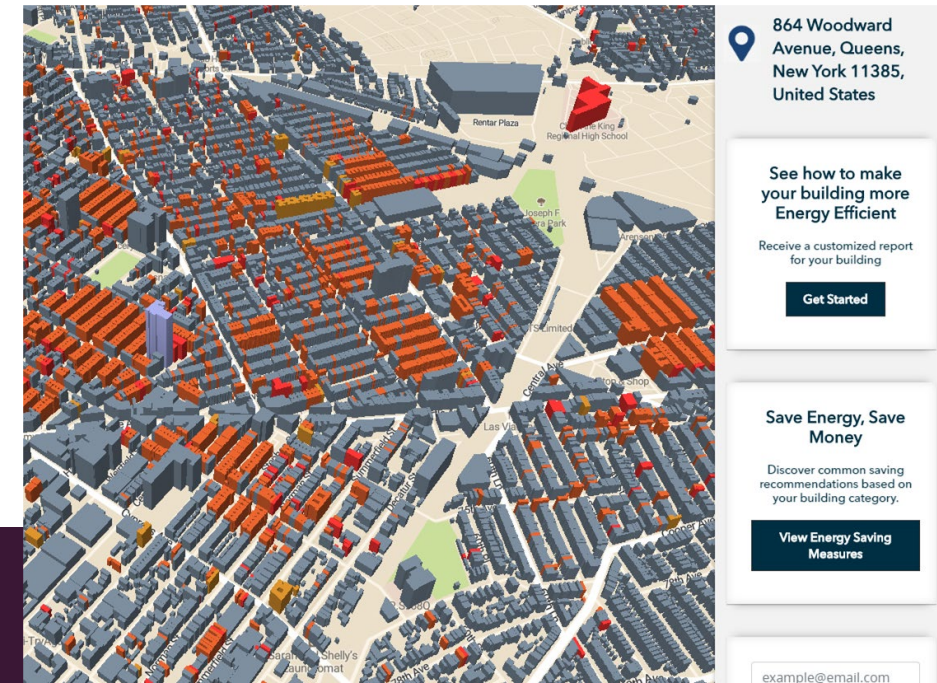
Multifamily Loan Products

- Partnership with Inclusive Prosperity Capital
- Available for multifamily and non-profit-owned properties
- Navigator Loan: fund predevelopment work
 - 1.99% interest and up to 2-year term
 - Can fund \$5K to \$750K
- Catalyst Loan: fund construction
 - From 5.79% for 7-year term up to 6.99% for 20-year term
 - Can fund \$300K to \$2M
 - Energy savings coverage ratio 1.3 for EE and 1.2 for solar
 - Unsecured loan is more flexible for LMI and NFP owners



BlocMaps Philadelphia

- City-wide “front door” to get snapshot of energy savings potential
- Model all multifamily properties in Philadelphia (affordable and market), similar to 1st step of RetrofitNYC
- Build a stronger marketplace of energy services for multifamily property owners
- Layers all available data sets to identify good project opportunities (e.g. benchmarking, permits, building audits, etc.)
- Planned launch Q3 FY21



C-PACE Program Overview

Program Administration:

- Closed first two C-PACE deals in Pennsylvania
- Came in ~\$40K under budget for FY20 primarily due to reduced marketing and consulting services
- Collected ~\$25K in program fees
- Launched new website: PhiladelphiaCPACE.org

Market Education & Outreach:

- Reached ~1,100 individuals since program launched in October 2019

Outreach Data ¹ (October 2019 – August 2020)	
Events Hosted/Attended	33
Organizations Addressed	694
Individuals Addressed	1,114

- Upcoming events include sessions with PACE Nation, Sustainable Energy Fund and Green Building United

¹ Event count includes events hosted by PEA or events at which PEA had a speaking role and discussed the C-PACE program. Organizations and individuals addressed are based on estimates when exact event data is unavailable.

J-Centrel (July 2020)

Project Overview

Property Type: Mixed-Use

Financing Amount: \$1,500,000

Building Measures: LED lighting, insulation, window replacements, energy recovery units, low-flow plumbing, and more

Environmental Impact:
Reduction of the building's total carbon footprint by 2,700 metric tons of CO2 equivalent



Property Owner:
SHIFT Capital



Capital Provider:
Twain Financial Partners



- ✓ \$1.5MM C-PACE financing filled **final piece of capital stack**
- ✓ Use for energy and water efficiency measures that exceed code requirements and achieved **immediate operating cost savings**
- ✓ Used for **commercial space** which includes retail storefronts, spaces for entrepreneurs and an accelerator for local businesses

Olde City Day School Solar (August 2020)

Project Overview:

Property Type: Commercial

Financing Amount:

\$519,019.68

Building Measures: Installation of solar panels

Environmental Impact:

Reduction of building's total carbon footprint by 6,900 metric tons of CO2 equivalent



Property Owner:

The Capers Company



Capital Provider:

Greenworks Lending

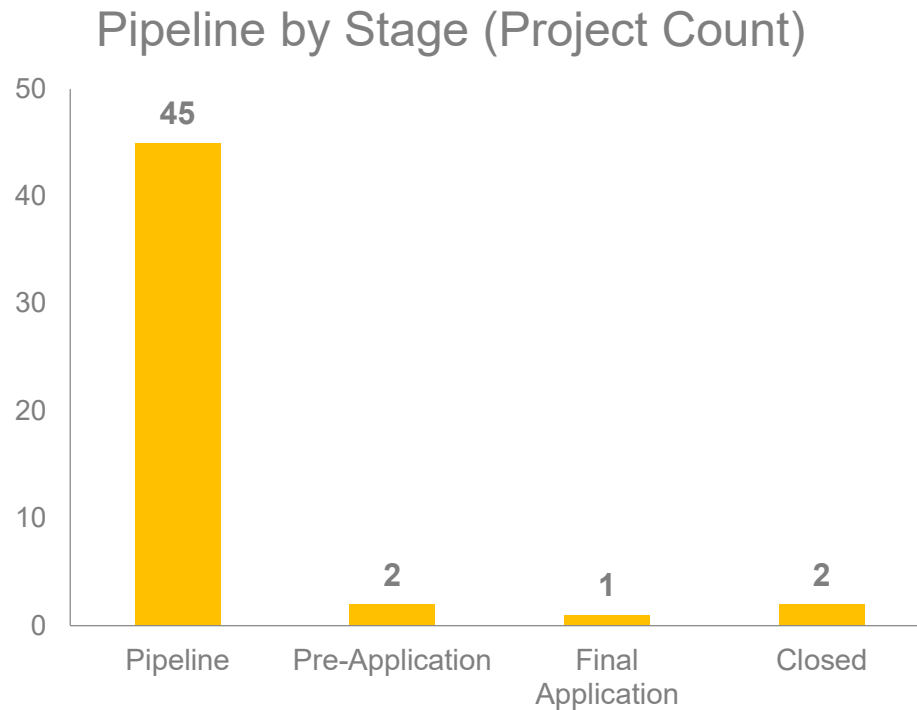


- ✓ \$500K C-PACE financing covered **100% of hard and soft costs** for solar installation
- ✓ Solar generation expected to offset almost **100% of tenants' electricity needs**
- ✓ Owner achieves savings without grants / subsidies; project economics enabled by C-PACE financing structure, tax benefits, utility bill savings and expected SREC revenue

C-PACE Pipeline Outlook

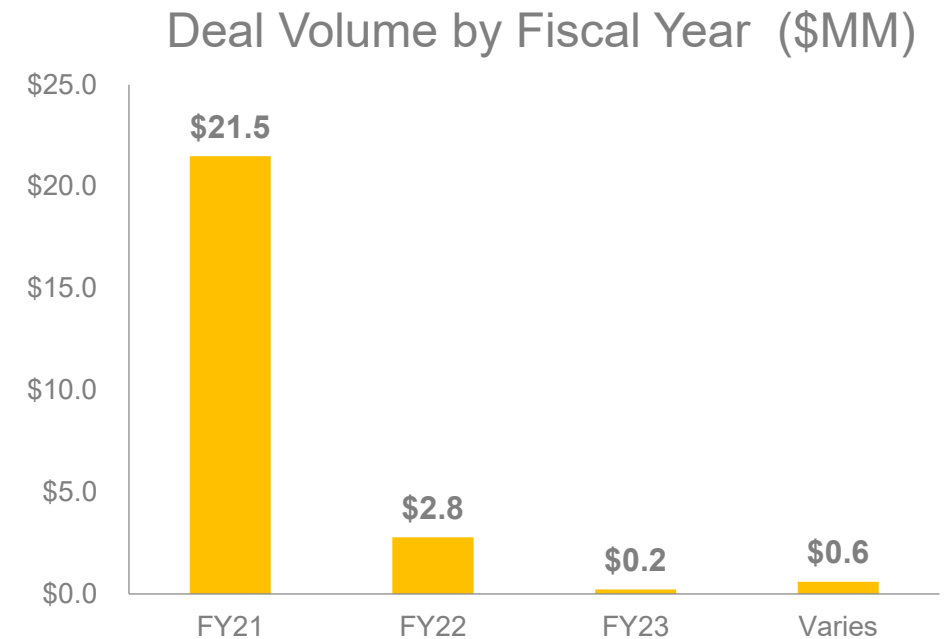
48 Projects in Pipeline; 2 Closed

Most projects still in early stage



\$25MM Probability-Weighted Value¹

Strong near-term deal flow expectations

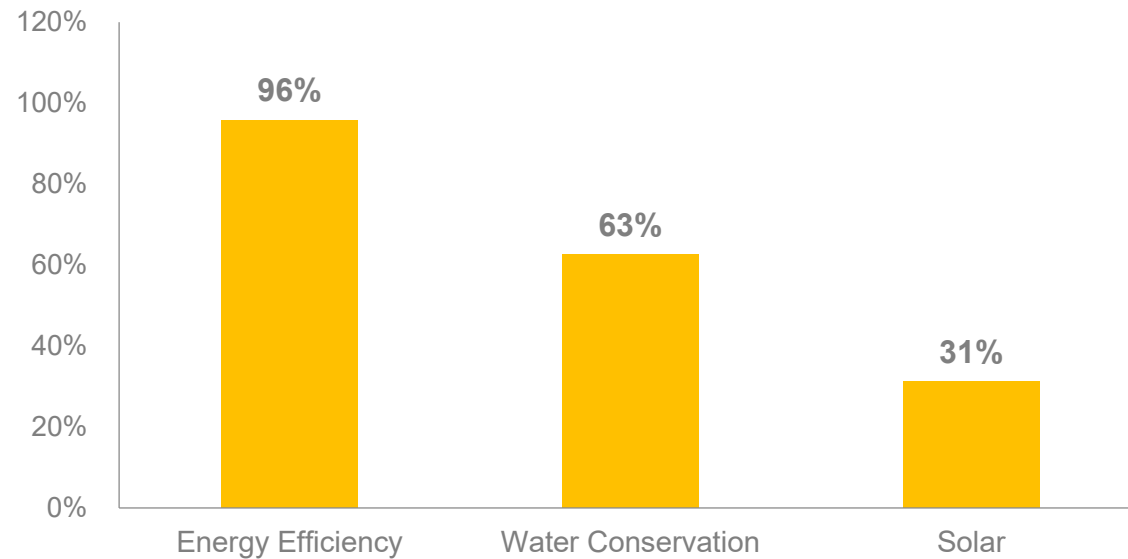


¹ Financing Amount for is probability-weighted based on project expectations as of 8/24/20. Pipeline reflections projects from 2020-2023 based on conversations with capital providers, developers, property owners and other stakeholders. All numbers are subject to change as projects mature.

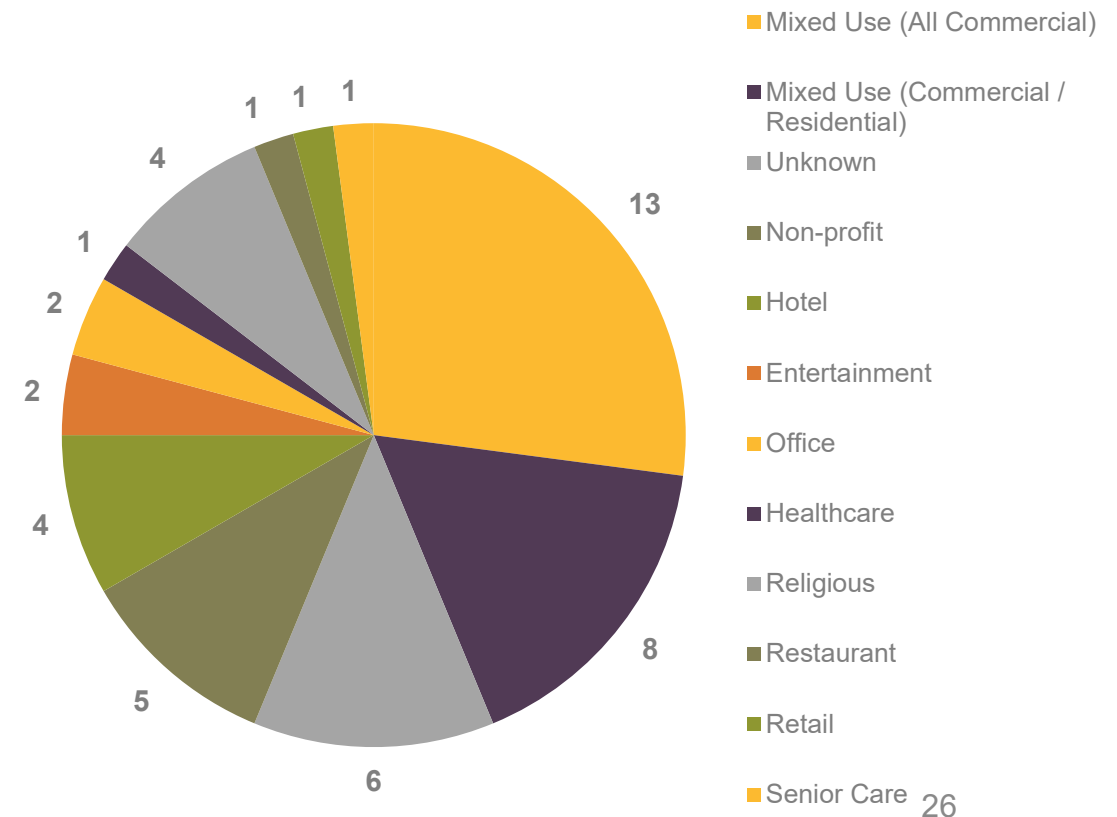
C-PACE Pipeline Outlook

Most Popular Approach: Energy Efficiency Trailed by Water Conservation & Solar

Percentage of Projects with Energy Efficiency, Water Conservation and Solar Components



Variety of Property Types in Pipeline Mixed-Use Buildings Most Common



The Philadelphia Green Bank: A Purpose-Driven Platform Strengthening Philly's Clean Energy Economy

VISION

Philadelphia has a **thriving, clean energy market** that **serves all Philadelphians**, and is a **national model** for equitable clean energy development.

MISSION

The Philadelphia Green Bank will **aggregate impact capital** (public, private, philanthropic and other) to **drive a robust, equitable clean energy market** in Philadelphia, support Philadelphia Energy Authority programs, and respond to the local challenges of climate change.

Working draft; not final language

Significant Market Barriers Prevent Equitable Access to Clean Energy Markets in Philadelphia

- **Underserved Segments**

- Small- and mid-sized solar and energy efficiency projects are hard to finance competitively

- **Slow Pipeline Development**

- Soft costs and time required to develop projects in underserved markets prevent large lenders from significant place-based investment

- **Exclusionary Underwriting**

- Traditional underwriting practices can exclude LMI customers, small businesses, and others

- **Unique Local Needs**

- Philadelphia has aging infrastructure, low utility rates and is the nation's poorest large city, requiring tailored products



PGB's Toolbelt to Expand Clean Energy Markets

Leverage capital from multiple sources

- Lend at low blended rates
- Mobilize multiples of private capital
- Collaborate with statewide green bank

Use alternative underwriting methods

- Demonstrate viability of markets & products
- Focus on populations that struggle to access competitive capital



PGB

Offer credit enhancements

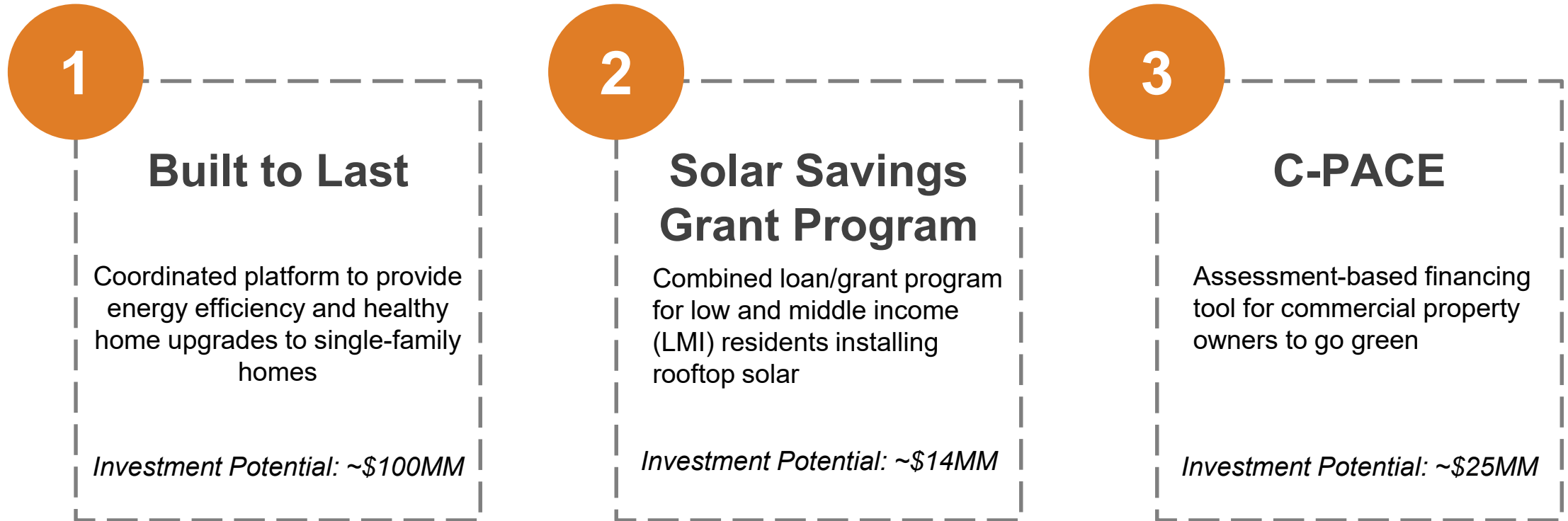
- Mitigate perceived or actual investment risk
- Remove barriers for private capital investors

Facilitate partnerships

- Build pipeline of local projects
- Accelerate market adoption of new products

PEA Offers Shovel-Ready Investments for the PGB

- PGB benefits reputationally from PEA's proven track record of success developing solar, energy efficiency and clean energy programs
- PGB can help PEA's programs to scale with additional capital and support, in particular:



Preliminary numbers – subject to change

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