



Philadelphia C-PACE Program *Overview*

Agenda

- C-PACE Overview
- Sample Projects
- Program Details
- Discussion

Philadelphia Energy Authority

- Municipal authority created in 2010 to support and promote Philadelphia's green energy economy
- Focuses on energy as a tool for impact to create jobs, strengthen communities, cut bills and reduce the City's carbon footprint
- 10-year Philadelphia Energy Campaign launched in 2016 to spur **\$1 billion of investment** in energy efficiency and clean energy projects and **create 10,000 jobs**
- PEA administers many programs including C-PACE, Solarize, Water & Sewer Protection and more



Stoking the Green Economy

	New Project Investments	Jobs Created*
Year One: 2017	\$53 million	225
Year Two: 2018	\$48 million	759
Year Three: 2019	\$35 million	317
Total To Date	\$136 million	1,301
Goal by 2026	\$1 billion	10,000

*Direct, indirect, and induced jobs

Philadelphia C-PACE

C-PACE Overview



What is C-PACE?

Financing tool: Provides long-term funding 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

Sample Projects



Energy Efficiency

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



Renewable Energy

- Solar
- Fuel cells
- Other renewable generation facilities



Water Conservation

- High-efficiency equipment
- Condensate water reuse
- Low-flow fixtures
- Some stormwater management projects

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

C-PACE in the COVID-19 Economy

1

Improves Cash Flow:

Energy efficiency projects financed with C-PACE can generate annual savings

2

Provides Liquidity:

Retroactive financing can reduce debt service payments or free up cash for businesses

3

Strengthens City & Workforce:

Addressing Philadelphia's carbon footprint creates a more resilient city

What Makes C-PACE Special?

C-PACE Element**Why It Matters**

Covers 100% of eligible hard & soft costs

Limited upfront cash needed for new project

Term of up to 30 years

Long-term repayment can match project payback

Rates are generally low

Displaces expensive mezzanine debt and equity

Energy and water savings often exceed annual repayment amount

Positive net operating income for borrower

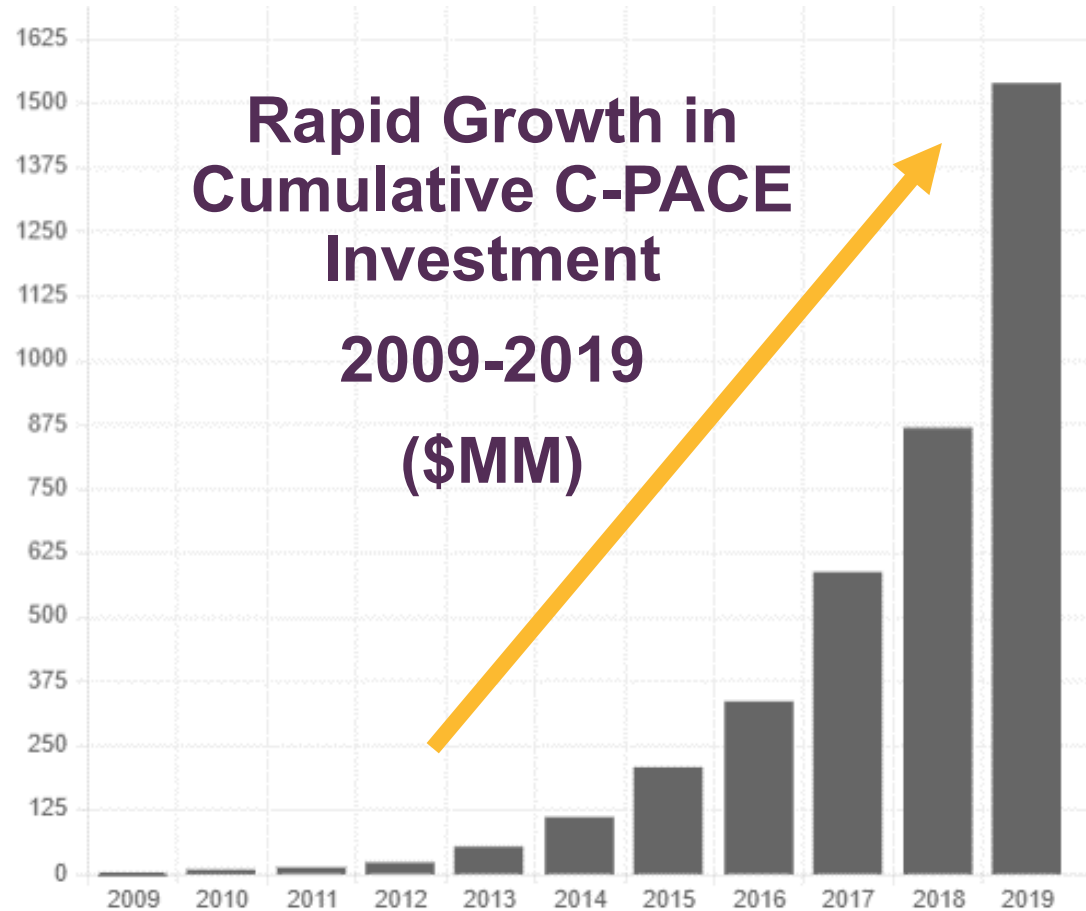
Under certain leases, building owner can pass through repayments to tenant

Addresses energy usage split incentive issue

If sale of property occurs, C-PACE obligation transfers with the sale

Allows for longer payback periods

C-PACE Growth Nationwide Through 2019



- ✓ **\$1,538 MM Invested**
- ✓ **2,400 Projects Funded**
- ✓ **17,848 Jobs Created**
- ✓ **22 Active States**

C-PACE in Philadelphia



Summer 2018:
Pennsylvania authorized the creation of C-PACE finance programs with the passage of Act 30

Summer 2019:
Philadelphia City Council and Mayor Kenney authorized C-PACE for the City of Philadelphia and assigned PEA as Program Administrator

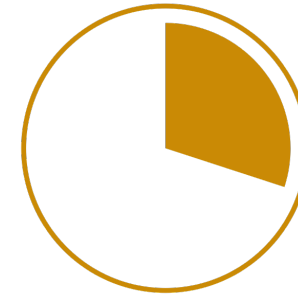
October 2019:
PEA launched C-PACE program

CY 2020:
Anticipated funding of first projects

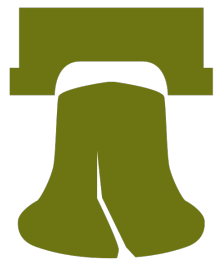
C-PACE Benefits to City of Philadelphia



~80% of Philadelphia's carbon footprint comes from **buildings and industry**



The EPA estimates commercial buildings **waste 30% of the energy** they use



Philadelphia has committed to an **80% carbon reduction by 2050**



By some measures, **every \$1MM** of C-PACE deployed equates to **removing ~1,000 cars** from the road

Eligibility

PROGRAM REQUIREMENTS

- Located in Philadelphia
- Commercial and industrial properties only
 - Residential and multi-family properties not allowed
- Building upgrades, gut rehabs, new construction permitted
 - New construction projects must exceed code requirements

FINANCING REQUIREMENTS

- \$100,000 minimum
- 95% lien-to-value limit
- Up to 30-year term
- Capital Provider registration with statewide C-PACE database
- Retroactive financing available

Philadelphia C-PACE

Sample Projects



Eligible GSI Projects – Current Law

Water Conservation

"Water conservation project": A project that **reduces the usage** of water or **increases the efficiency** of water usage.

Projects that allow stormwater to be captured and re-used on site would qualify under the above definition. This may include:

- Cisterns
- Ponds and wet basins
- Subsurface detention

Energy Efficiency

"Clean energy project": A project that installs equipment to facilitate or **improve energy conservation** or **energy efficiency**,

Projects that improve the building's energy efficiency would qualify. This may include:

- Green roofs

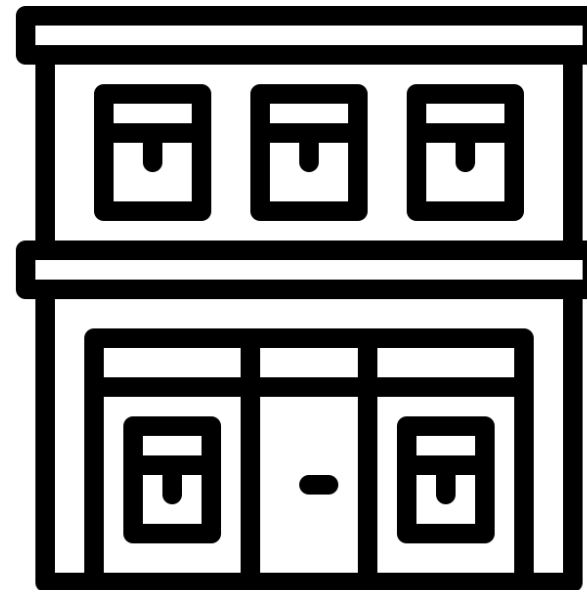
Please reach out to PEA with any questions on GSI project eligibility
CPACE@philaenergy.org

Mixed-Use Buildings – Current Law

To use C-PACE on a mixed-use building:

- Commercial and residential portions of the building must have unique OPA Account Numbers
- 100% of hard and soft costs for systems that serve commercial portion are eligible
- Pro-rated hard and soft costs for systems that serve full building are eligible
- It is possible to include the roof in the commercial condo, which would allow owner to use C-PACE for roof replacements, solar, green roofs, etc.

Mixed-Use Building



✗ Residential and multifamily portion is not C-PACE eligible

✓ Commercial portion is C-PACE eligible

Sample Project: Building Upgrades

- A 550,000 square foot office building installs LED lighting, new windows and updated building controls; they also seal the building envelope to reduce air leaks
- Total project cost is \$4.2MM (including hard and soft costs), 100% of which is financed with C-PACE
- The financing is for 20 years at a 5.58% interest rate
- The building upgrades result in a ~25% reduction in energy consumption and lower annual O&M expenses
- After taking into account the annual C-PACE repayment, the building owner saves ~\$86K per year

	Before Project Cost	After Project Cost	Savings
kWh Consumption	10,000,000 kWh	7,342,690 kWh	2,657,310 kWh
Consumption Costs	\$1,612,222	\$1,183,805	\$428,417
Ops & Maint. Costs	\$20,000	\$8,960	\$11,040
C-PACE Special Assessment Payments	\$0	\$353,830	(\$353,830)
Total Annual Cost	\$1,632,222	\$1,546,595	\$85,627

Sample Project: Solar Installation

Situation:

Commercial property owner wishes to install solar on existing self-occupied office building with no out-of-pocket expense

Assumptions:

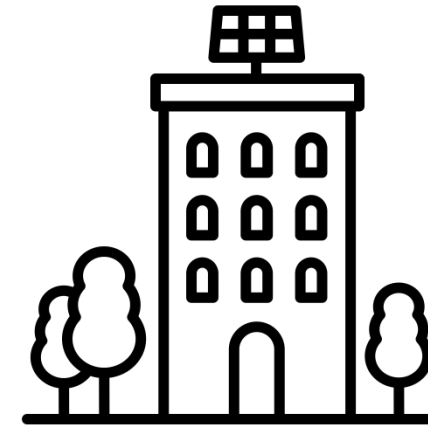
- Existing Mortgage: 65% loan-to-current-value
- Solar Cost: \$900,000
- Interest Rate: 5.5%

C-PACE Solution:

- C-PACE offers a 100% financing solution, including qualifying expenses
- 25-year, fully-amortizing financing to match the useful life of the asset

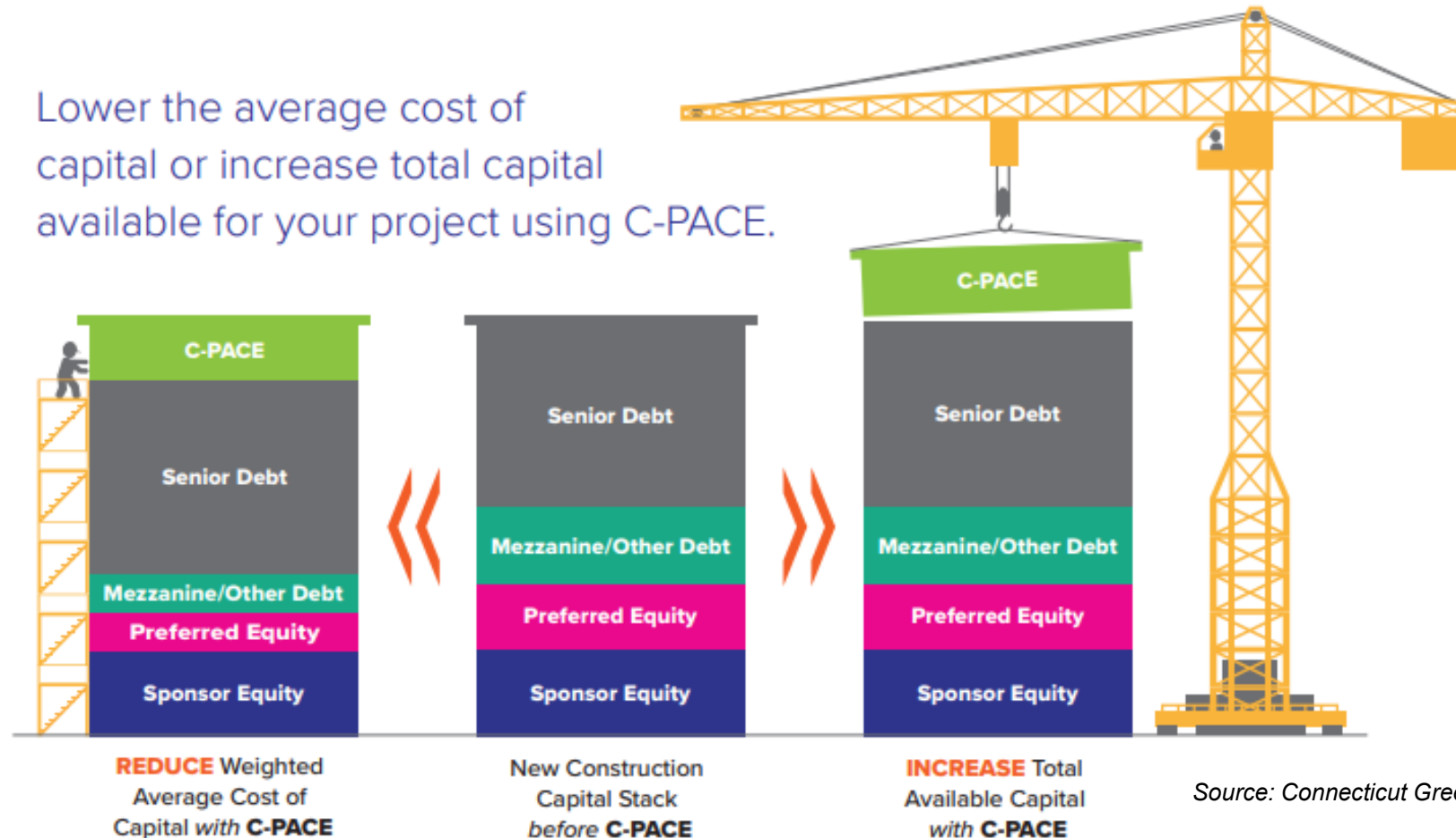
Results:

- Property Owner benefits from tax incentives, solar rebates and reduced utility bills due to on-site generation
- C-PACE Assessment payment obligations stay with the property in the event of a sale



Sample Project: New Construction

Lower the average cost of capital or increase total capital available for your project using C-PACE.



Philadelphia C-PACE

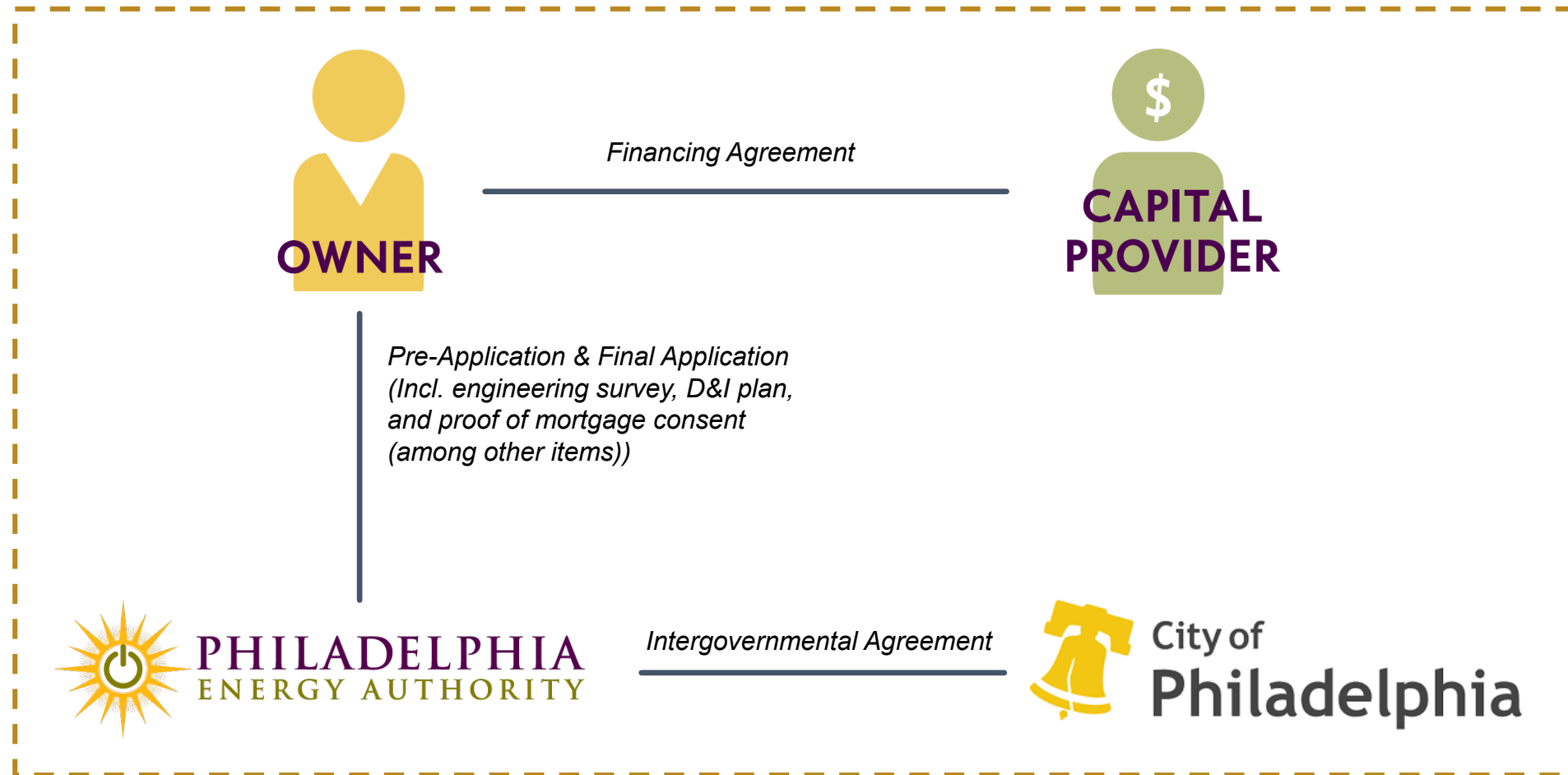
Program Details



Application Process



Key Parties



Process Details: Step-by-Step List

1. **Property Owner** submits [Pre-Application](#) to **PEA**
2. **PEA** confirms eligibility via Pre-Application Approval to **Property Owner**
3. **Capital Provider** underwrites funding
4. **Property Owner** gets consent from **Mortgage/Lien Holder**
5. **Property Owner** contracts with **Developer/Contractor** for capital improvements
6. **Capital Provider** finalizes Financing Agreement with **Property Owner**
7. **Property Owner** submits [Final Application](#) to **PEA** for review and approval
8. **PEA, City, Property Owner** and **Capital Provider** sign C-PACE Statement of Levy & Lien Agreement; **PEA** submits signed document to Department of Records for recordation
9. **Property Owner** and **Capital Provider** execute Financing Agreement
10. **Capital Provider** pays **Developer/Contractor** for installed improvements
11. **PEA** provides amortization schedule and payee info to **Paying Agent** at close of each financing
12. **PEA** bills **Property Owner** annual repayment due on schedule with property taxes
13. **Property Owner** makes payment to **Paying Agent**, who then confirms payments receipt to **PEA**
14. **PEA** provides **Paying Agent** instructions for distribution of assessment payment to **Capital Provider** and administrative payment to **PEA**

Key Application Requirements

- ✓ Engineering survey explaining the baseline energy and water usages and the expected savings
- ✓ Consent from existing mortgage/lienholder(s)
- ✓ Diversity & Inclusion Plan discussing commitment to local and diverse businesses

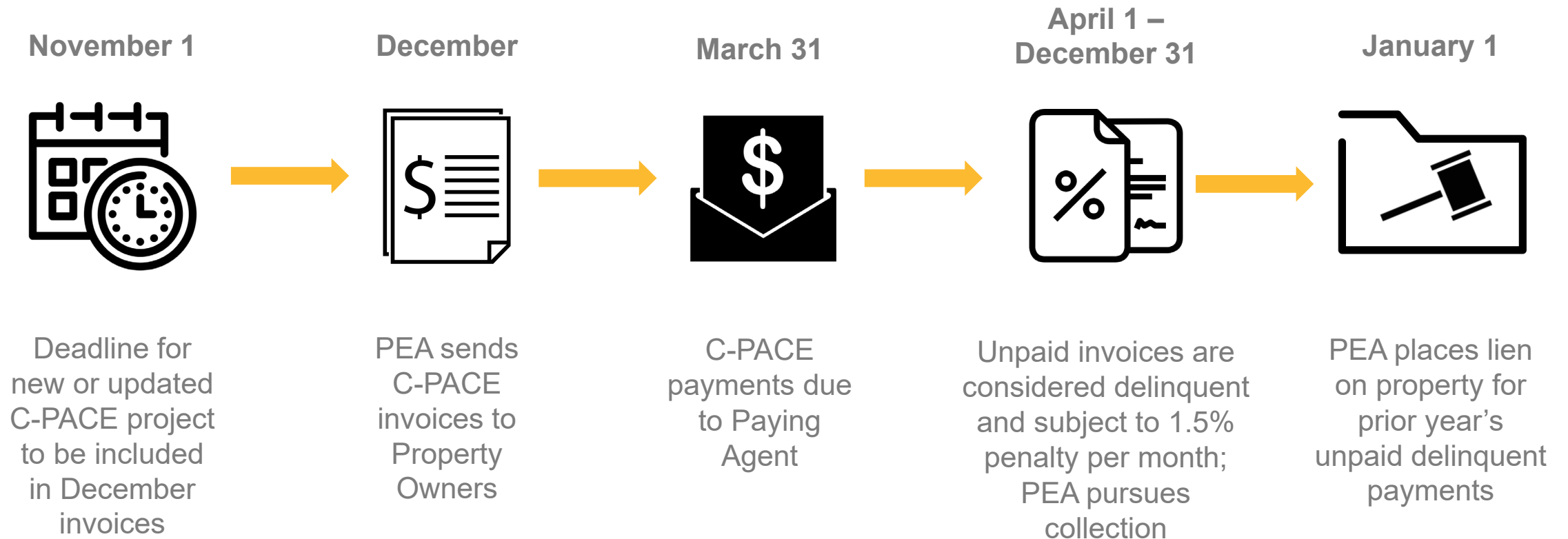
Why do mortgage holders consent?

- C-PACE projects generally:
 - Increase property's collateral value
 - Reduce building operating cost
- Payments do not accelerate
- Only the current year's C-PACE payment is senior to mortgage

Over 200 financial institutions have already consented to C-PACE financing in other markets

**Full list of requirements is in the Program Guidelines
available at PhiladelphiaCPACE.org**

Invoicing & Payment Timing



Enforcement

- Unpaid C-PACE Special Assessment payments are considered delinquent on April 1
- A lien is recorded on property the following January 1 if C-PACE Assessment payment is still outstanding
- At the Capital Provider's request, PEA will pursue enforcement of the lien through a sheriff's sale process
- Capital Provider must make PEA whole for any costs of enforcement
- Per the Philadelphia C-PACE Statute, in the event of a proceeding to force payment on a lien on the property, the C-PACE lienholder shall be required to make the City whole for any shortfall on payment on any City liens based on any type of City claim, up to the full amount of repayment of the lien

Comparison to Statewide Guidelines

Key Categories	Philadelphia C-PACE	Statewide Guidelines
<i>Program Administrator</i>	Philadelphia Energy Authority	Sustainable Energy Fund
<i>Minimum Project Size</i>	\$100,000	\$10,000
<i>Lien-to-Value Ratio</i>	95% maximum	N/A
<i>Diversity and Inclusion plan</i>	Required with Final Application	N/A
<i>Measurement and Verification</i>	Annual data submission per the City's benchmarking law	2-3 years of data submission required depending on reporting mechanism
<i>New Construction</i>	2018 IECC Code applies in Philadelphia; new construction must surpass code	Must meet certain standards listed in SEF Program Guidelines
<i>Program Fees</i>	Hybrid percentage/flat fee structure for origination; \$750 annual fee per project	0.75-1.25% origination fee; annual fee capped at \$250
<i>Statement of Levy and Lien</i>	Four-party agreement signed by Property Owner, Capital Provider, PEA and City	Three-party agreement signed by Property Owner, Capital Provider and relevant county
<i>Obligation to repay municipal liens</i>	In event payment is forced for the lien, Capital Provider must make City whole for any payment shortfall for any City lien	N/A
<i>Website</i>	PhiladelphiaCPACE.org	PennsylvaniaCPACE.org

Capital Provider Qualification Process

- Philadelphia C-PACE operates an “open market” program
- Capital Providers must register with the statewide C-PACE Capital Provider Database managed by the Sustainable Energy Fund
- Registration form is available on the [Pennsylvania C-PACE website](#)
- Upon approval of registration, the Capital Provider will be added to public database on the [Pennsylvania C-PACE website](#)
- All Pennsylvania Financial Institutions are automatically C-PACE Capital Providers per the Pennsylvania C-PACE Statute
- Pennsylvania Financial Institutions are still encouraged to register so they appear on the list of C-PACE Capital Providers

Registered Capital Providers

Abacus Property Solutions, LLC

CCG PACE Funding, LLC

Clean Fund

Commercial PACE Finance

Counterpointe SRE

C-PACE Capital Group

CREA Group IC-PACE Capital

Dividend Finance, LLC

ENHANCED PACE Finance, LLC

Greenworks Lending, LLC

Inland Green Capital, LLC

Lever Energy Capital, LLC

LordCap Pace, LLC

PACE Equity

Petros PACE Finance

Reinvestment Fund

Twain Financial Partners

VGG Consulting

White Oak Global Advisors, LLC

List with full contact information is available at PhiladelphiaCPACE.org

Qualified Engineering Professionals

- Property Owners must obtain surveys performed by Qualified Engineering Professionals stating the energy and water usage baseline and projected savings from C-PACE Project
- A Qualified Engineering Professional is someone who holds one of the following certifications:
 - *Certified Building Energy Assessment Professional (BEAP) (offered by ASHRAE)*
 - *Certified Energy Auditor (CEA) (offered by Association of Energy Engineers [AEE])*
 - *Certified Energy Manager (CEM) (offered by AEE)*
 - *Certified High-Performance Building Design Professional (HBDP) (offered by ASHRAE)*
 - *Certified Measurement and Verification Professional (CMVP) (offered by AEE and Efficiency Valuation Organization)*
 - *Licensed Professional Engineer (P.E.)*
 - *Investor Confidence Project (ICP) Quality Assurance Assessor*
 - *Investor Confidence Project (ICP) Project Developer*
- As a resource for Property Owners, PEA has provided a list of self-certified Qualified Engineering Professionals on the [Philadelphia C-PACE website](#)
- Qualified Engineering firms [are invited to self-certify their credentials](#) to be added to the website
- **PEA does not verify, vet, endorse, or rank Qualified Engineering Professionals**

Qualified Engineering Professionals

Burns Mechanical, Inc.

Clark Energy, Inc.

Concord Engineering Group

Curtin Engineering LLC

Ecosave, Inc.

Edison Energy

Effectiv Energy Solutions

EG2 Engineering, P.C.

Grin Sustainability, Inc.

Jacobs Engineering Group

Kitchen & Associates

Maxwell Lighting & Energy

Mondre Energy, Inc.

PEER Environmental

Pennoni

ProtoGen, Inc.

Practical Energy Solutions

PWI Engineering

Remington & Vernick Engineers

Square K Energy Solutions

TEN (The Efficiency Network)

Van Lore Group

List with full contact information is available at PhiladelphiaCPACE.org

Program Fees

Application Fee: Currently Waived

Origination / Closing Fee:

Percentage or flat fee per project based on the schedule to the right

Annual Admin Fee:

Annual fee of \$750 per project

Other Fees:

Fees related to recordation, lien placement and PEA's collection costs in event of delinquency will also apply

Origination / Closing Fee Schedule			
For C-PACE Financing Amounts		Fee Structure Applied:	Percentage / Flat Fee
from	to		
\$100,000	\$2,000,000	Percentage	1.250%
\$2,000,001	\$2,222,222	Flat Fee	\$25,000
\$2,222,223	\$4,000,000	Percentage	1.125%
\$4,000,001	\$4,500,000	Flat Fee	\$45,000
\$4,500,001	\$6,000,000	Percentage	1.000%
\$6,000,001	\$8,000,000	Flat Fee	\$60,000
\$8,000,001	\$10,000,000	Percentage	0.750%
\$10,000,001	\$15,000,000	Flat Fee	\$75,000
\$15,000,001	\$20,000,000	Percentage	0.500%
\$20,000,001	and greater	Flat Fee	\$100,000

Philadelphia C-PACE Discussion



Philadelphia **C-PACE**



PHILADELPHIA
ENERGY AUTHORITY

Contact Information

Philadelphia Energy Authority

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