



Pennsylvania's Energy Efficiency Economy

Reinventing Rural America

Sustainable Building Construction & Materials

October 4, 2019

What I Learned



Report of the Indiana County Sustainable Economic Development Task Force

Released September 2018

What I Learned: Building Materials and Construction Focus Group

“We envision/wish that there was reduced energy consumption in building construction and use/lifespan in Indiana County.”

Challenges Identified by the Building Materials and Construction Focus Group

1. “There is a lack of awareness regarding the cost savings that reducing energy consumption provides for residential development, commercial businesses, and government”
2. “There are few examples of sustainable building practices in Indiana County that allow individuals to see and experience the practices firsthand...We need a program or process to highlight any demonstration projects or sustainable building examples that do exist.”

Recommendations of the Building Materials and Construction Focus Group

1. Understand/evaluate any current incentive in place
2. Research existing case studies and other information
3. Develop partnerships
4. Promote/advertise an inventory of LEED certified buildings in Indiana County
5. Develop recognition mechanisms through an Indiana County “Sustainable Certification” program
6. Promote existing trainings and host workshops for municipalities.

• Challenges

- Low Population Density
- Customer Reluctance and Lack of Knowledge
- Shortage of Qualified Local Energy Efficiency Workers
- High Costs
- Insufficient Outcome Data

• Promising Trends

- State Policy
- Rural-Targeted Programs
- Program Funding
- Community Engagement and Partnerships
- Economic Development
- Energy Efficiency Workforce Development
- Direct-Install Programs
- Customer Education
- Combining Energy Efficiency with other Measures



“Reaching Rural Communities with Energy Efficiency Programs”

- **Recommendations**

- Enact policies that drive rural energy efficiency investments
- Engage local partners to develop programs (universities, electric utility)
- Use a variety of online and traditional communication channels
- Combine water conservation, renewable energy with energy efficiency
- Quantify program performance even when not required

Energy efficiency saves money, improves resiliency, and creates jobs



Shoemaker, M., Gilleo, A., Ferguson, J., & American Council for an Energy Efficient Economy. (2018, September). Reaching Rural Communities with Energy Efficiency Programs. Retrieved from <https://aceee.org/research-report/u1807>



Who is KEEA?



About: Keystone Energy Efficiency Alliance

- Founded in 2006 in response to pending expiration of utility rate caps and lack of energy efficiency policies in Pennsylvania
- Nearly 70 business members as well as nonprofit and government partners
- Advocates on behalf of energy efficiency industry for stronger energy efficiency policy throughout Pennsylvania
- **BOTTOMLINE: KEEA grows the market for energy efficiency**

Members

CLEARResult



Honeywell



the business voice of advanced energy



evolve
environment :: architecture



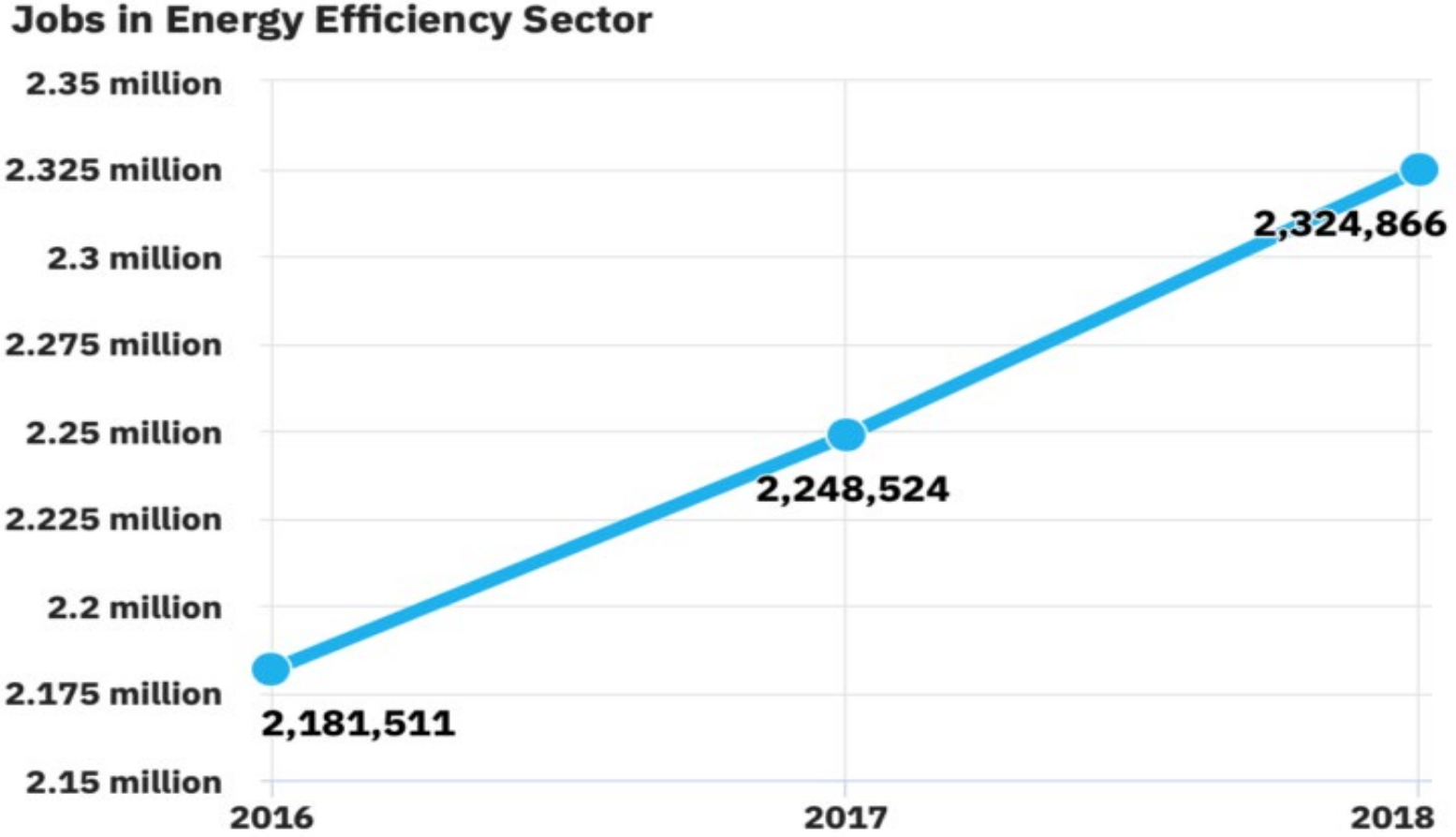
Schaedler
yesco

Products and Solutions for the
Electrical Industry.

ORACLE



National Energy Efficiency Jobs



Pennsylvania's Energy Efficiency Jobs

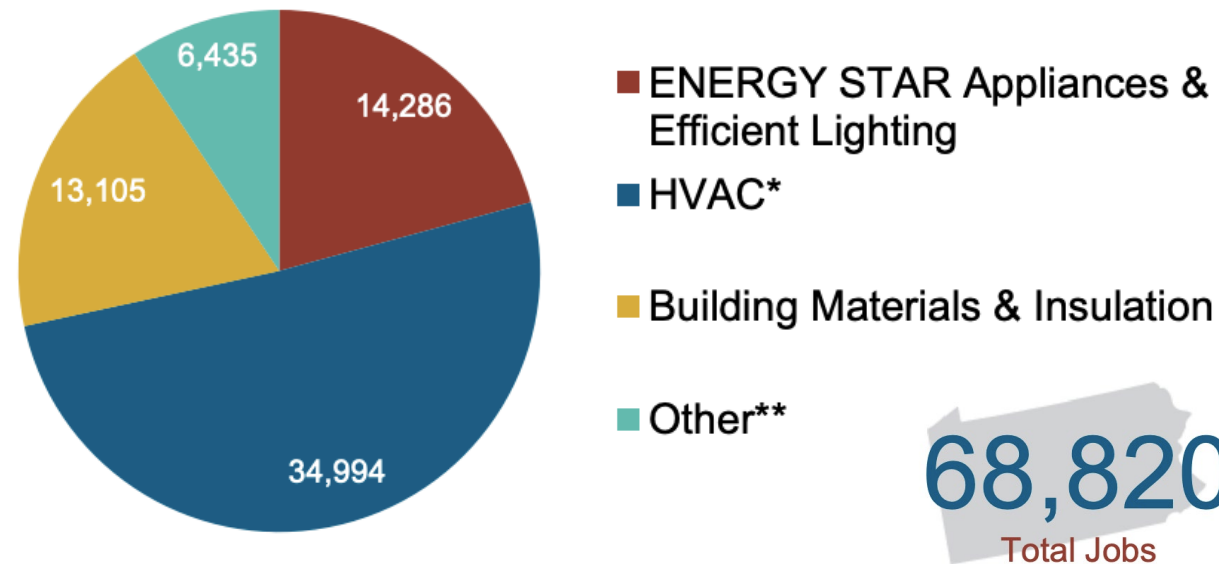
In Pennsylvania,
EE Jobs
Comprise:

14%
of All
Construction Jobs

26%
of All
Energy Sector Jobs

7%
of Pennsylvania
residents employed in
EE are Veterans

Jobs by Sector



*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

**Other such as energy audits, building certifications, and software services

Showcasing Energy Efficiency Champions

- **KEEA Showcases Energy Efficiency Champions: *highlighting Pennsylvania Businesses, non-profits, and workers leading with energy efficiency***



Convening Energy Efficiency Stakeholders



Saving Energy Saves Money, Saves Lives, and Promotes Sustainability

Convening Pennsylvania's Energy Efficiency Industry to network, explore new trends and the future of energy efficiency



Showcasing Energy Efficiency Champions

COMPANY PROFILE:



Dairy Cows at Brubaker Farms

“ From the Owner:



“We are a family-owned and operated business that has been in the dairy industry for over 100 years. We are committed to providing our customers with the highest quality dairy products and to maintaining a sustainable and efficient operation. We have recently implemented several energy efficiency measures that have helped us reduce our energy consumption and costs, while also improving our environmental footprint. We are proud to be recognized as an energy efficiency champion and look forward to continuing our efforts to improve our energy performance.”



FAST FACTS:

NAME: BRUBAKER FARMS, INC.
493 Weaver Road

HQ: BRUBAKER, INDIANA



SIZE: 100,000 sq. ft. of production space
100,000 sq. ft. of office space

SCOPE: Energy audit, lighting retrofits, HVAC retrofits, solar panel installation, energy management system, energy efficiency training

Showcasing Energy Efficiency Champions

FAST FACTS:

NAME: DMI Companies



HQ: Monongahela, PA

TYPE: Manufacturer of Heating, Ventilation and Air Conditioning (HVAC) products



SIZE: DMI Companies employs about 450 workers nationwide, with their largest workforce in the Pittsburgh area

SCOPE: DMI Companies is the largest HVAC products manufacturer in North America

Showcasing Energy Efficiency Champions

COMPANY PROFILE: SMART & SMACNA



FAST FACTS:

NAME: SMART, Local 12
Sheet Metal, Air, Rail
and Transportation
Workers Union

SMACNA, SWPA
Sheet Metal and Air
Conditioning
Contractors
National Association

LOGO:



SIZE: More than 1,100
combined members

Showcasing Energy Efficiency Champions



From Philadelphia's Playbook

PHILADELPHIA ENERGY AUTHORITY

ABOUT PEA PROGRAMS PUBLIC BIDS JOB BOARD NEWS EVENTS RESOURCES

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.

From Chester County's Playbook



Google Custom Search Search

An official website of the Chester County Government.

Home About Us Comprehensive Plan Planning Topics Data, Maps, & Reports Municipal Corner

Utilities and Infrastructure

Issues and Trends



Home Energy Audits

A home energy audit can help a homeowner understand how energy is used in the home, and where it can be used more efficiently or reduced. PECO estimates that energy improvements such as installing efficient windows and doors, upgrading heating and cooling systems, and reducing drafts with insulation and caulk can reduce energy use by up to 40 percent.

Home energy audits are typically conducted by professionals that are certified by nonprofit credentialing organizations such as the [Building Performance Institute](#) or other similar agencies.

Utilities and Infrastructure

Programs and Projects

County-wide Planning Policies

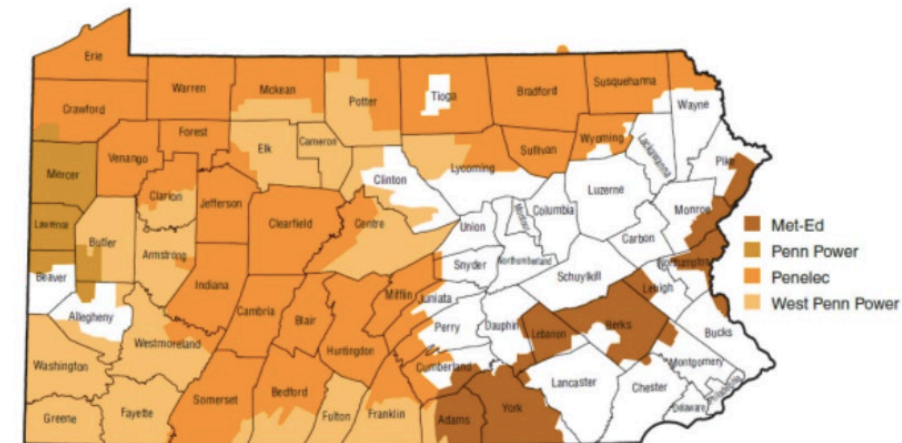


Funding: Grants and Loans



Pennsylvania's Energy Efficiency and Conservation Law: Act 129

- Pennsylvania's Act 129 mandates electric utilities to reduce energy and demand for all customers
- Programs are funded through a surcharge on customer's electricity bills
- Current programs expire May 31, 2021
- Programs specifically for healthcare, food services, HVAC, lighting, energy audits



www.EnergySavePA-Business.com

Additional Resources

- Sustainable Energy Funds
- Pennsylvania Sustainable Energy Financing (PennSEF)
- Database of State Incentives for Renewables and Efficiency (DSIRE)

PA C-PACE

PROPERTY ASSESSED CLEAN ENERGY

- **Pennsylvania Act 30 of June 12, 2018:**
 - **Commercial Property Assessed Clean Energy (C-PACE)**
 - “Authorizes the establishment of a **property assessed clean energy** program in the Commonwealth to ensure that owners of:
 - agricultural
 - commercial, and
 - industrial properties
 - can obtain low-cost, long-term financing for:
 - energy efficiency,
 - water conservation and
 - renewable energy projects.”

PA C-PACE

PROPERTY ASSESSED CLEAN ENERGY

HIGHLIGHTS

- Allows a property owner to make an investment on their property to reduce energy or water use.
- The improvement project is funded by a loan and the loan payment is made on the property tax bill.
- The payment would continue with the tax bill - even if the ownership changes.
- Lien is senior to existing mortgage, on par with property taxes.
Mortgage/Lien holder consent is required
- Commercial and agricultural property. No multi-family.

PA C-PACE

PROPERTY ASSESSED CLEAN ENERGY

PROJECT PARAMETERS

1. Replaces or supplements an existing energy system that utilizes nonrenewable energy with an energy system that utilizes alternative energy.
2. Facilitates the installation of an alternative energy system in an existing building or a major renovation of a building.
3. Facilitates the retrofit of an existing building to meet high-performance building standards.
4. Installs equipment to facilitate or improve energy conservation or energy efficiency, including heating and cooling equipment and solar thermal equipment.

Statistics:

- \$887 Million Invested
- 1,938 Projects
- 13,305 Jobs Created
- 86% of Loans Used for Existing Structures

Energy efficiency (49%)

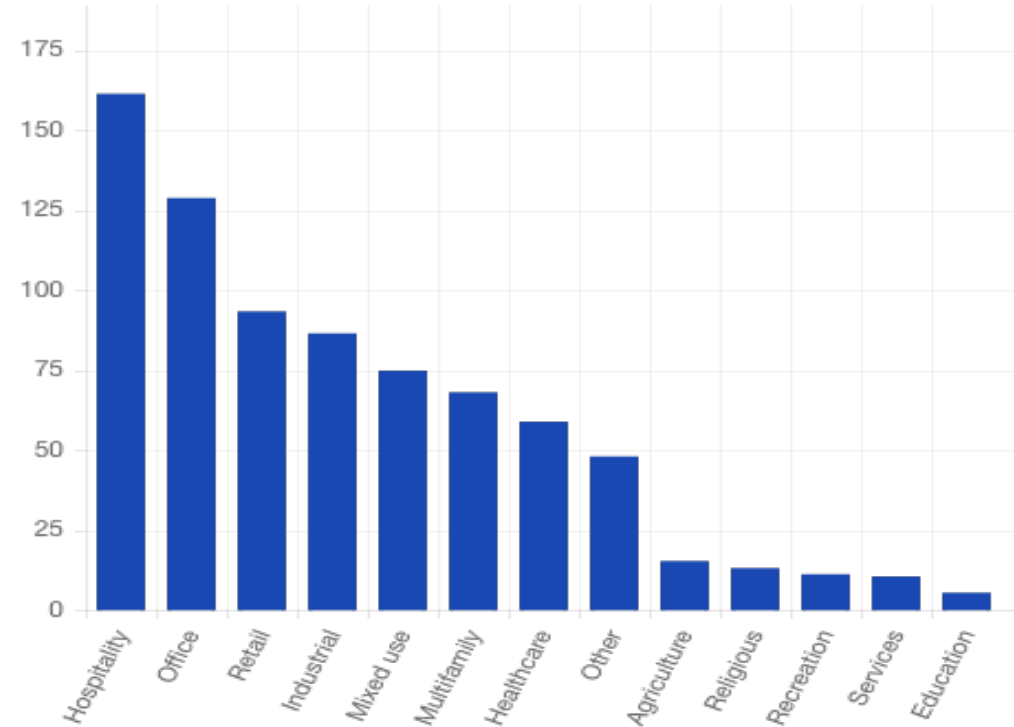
Renewable energy (23%)

Mixed (22%)

Resiliency (7%)

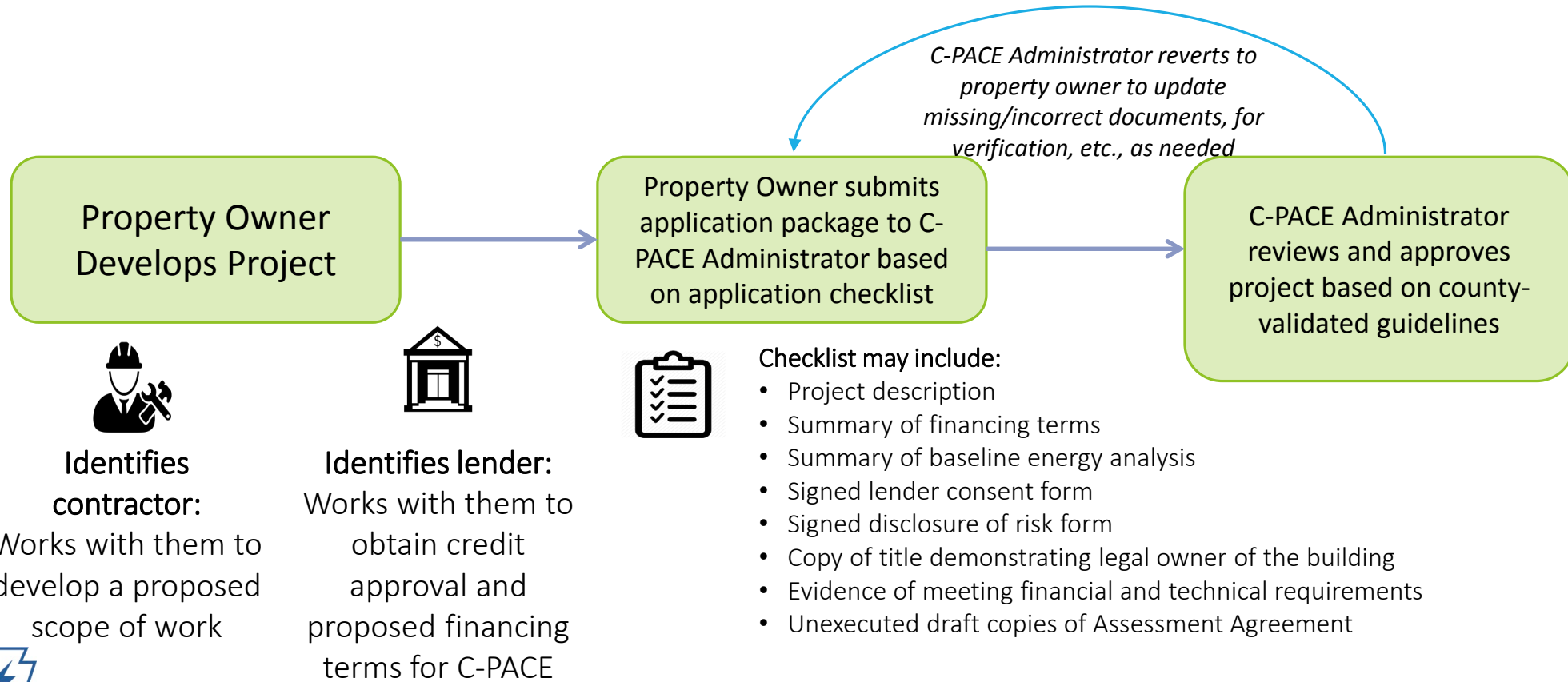
Property Types and National Investment Amounts

- Hospitality (\$161M)
- Office (\$129M)
- Retail (\$93M)
- Industrial (\$86.5M)
- Mixed Use (\$75M)
- Multifamily*
- Healthcare (\$59M)
- Agriculture (\$15M)
- Religious (\$11M)
- Recreation (\$11M)
- Services (\$10M)
- Education (\$5M)



PA C-PACE PROJECT PROCESS

PROPERTY ASSESSED CLEAN ENERGY



PA C-PACE

PROPERTY ASSESSED CLEAN ENERGY

CASE STUDY

Energy Upgrade: Lighting System

- Total Project Cost: **\$134,000**
- 100% C-PACE Financing: **\$134,000**
- Term: 10 years
- Annual C-Pace Special Assessment: **\$19,509**

- Annual Energy Cost Savings: **\$28,582**
- Lifetime Energy Cost Savings: **\$285,820**



PA C-PACE

PROPERTY ASSESSED CLEAN ENERGY

ROLE OF GOVERNMENT

- A municipality with a community or economic development department **or** county may establish a property assessed clean energy program by **adopting an ordinance or resolution** that will establish the program, **define the district** and **provide other operational standards and guidelines...**
- **Collect assessments** using present tax collection process and remit payment
- Require all clean energy projects to comply with national energy efficiency standards.
- **A municipality or county may contract with a third party to administer the program.**

PA C-PACE

PROPERTY ASSESSED CLEAN ENERGY

PROGRAM GUIDELINES



- **October 2018:** Convened 100+ stakeholders
- **January 2019:** Solicited public comment on draft guidelines
- **Result:** C-PACE-in-a-Box for County Officials



PA C-PACE

PROPERTY ASSESSED CLEAN ENERGY

PROGRAM ADMINISTRATION

- Single point of contact for property owners and lenders
- Promotes C-PACE to lenders and developers at state and national level
- Facilitates county approval of guidelines and assessment remittance
- Coordinates payment between county and lender
- Ensures all public reporting and documentation requirements are met
- Measures and evaluates projects and the overall C-PACE program

PA C-PACE

PROPERTY ASSESSED CLEAN ENERGY

PROGRAM ADMINISTRATION

- **No Cost for Counties:** C-PACE requires no credit exposure or general obligation funds from Counties
- **Statewide Approach:** uniform program, applied consistently, helps promote scalability by simplifying participation for stakeholders
- **Single Point of Access:** 3rd party administrator serves as 1) go-to contact for stakeholders, 2) ensures project compliance, and 3) services special charge repayment.
- **Open Market:** qualified private lenders provide property owners competitive rates and financing terms. Any contractor or project developer can work on a qualified project.



THANK YOU
