U.S. DEPARTMENT OF ENERGY
Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

Lessons in Commercial PACE Leadership: The Path from Legislation to Launch

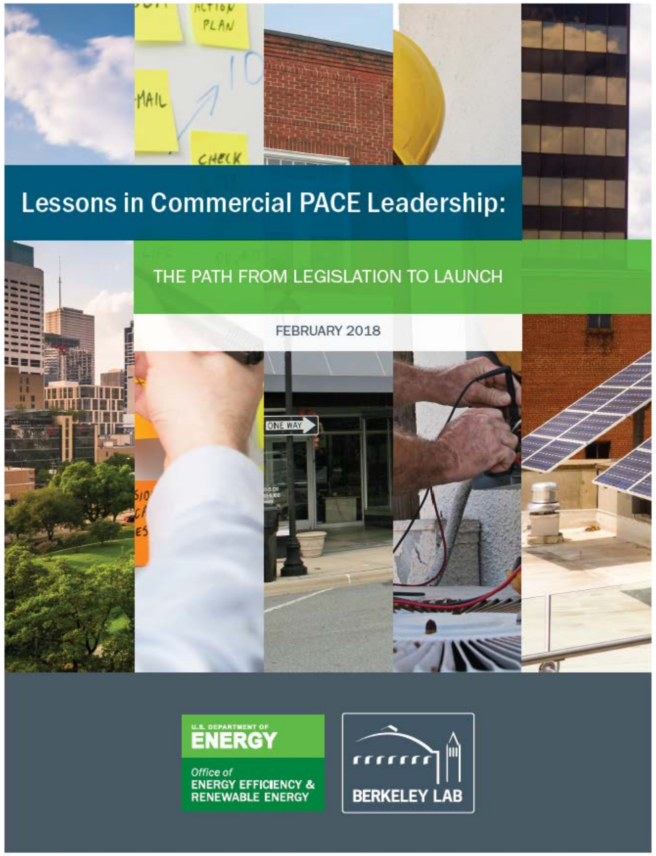
A Presentation for the 2018 ACEEE Finance Forum

Sean Williamson, Advisor
Office of Energy Efficiency and Renewable Energy
U.S. Department of Energy

May 22, 2018

Agenda

- Overview and Background
- Lessons in Commercial PACE Leadership: The Path from Legislation to Launch
  - Enabling C-PACE
  - Setup and Program Guidelines
  - Program Launch
- DOE's C-PACE Working Group



Overview and Background

- ***Lessons in C-PACE Leadership*** **released in February 2018**
  - Available at DOE's State and Local Solution Center and at Lawrence Berkeley National Lab
  - Authors

    Greg Leventis (LBNL)

    Lisa Schwartz (LBNL)

    Chris Kramer (Energy Futures Group)

    Jeff Deason (LBNL)

BERKELEY LAB
Lawrence Berkeley National Laboratory

Supported and directed by the U.S. Department of Energy, Office of Weatherization and Intergovernmental Programs, Office of Energy Efficiency and Renewable Energy

Overview and Background

- **Opportunity**

  - Address gap between states with enabling legislation (many) and states with active programs (fewer). *See next slide.*

  - C-PACE financing can unlock billions of dollars of investment and energy savings in the commercial and industrial sector.

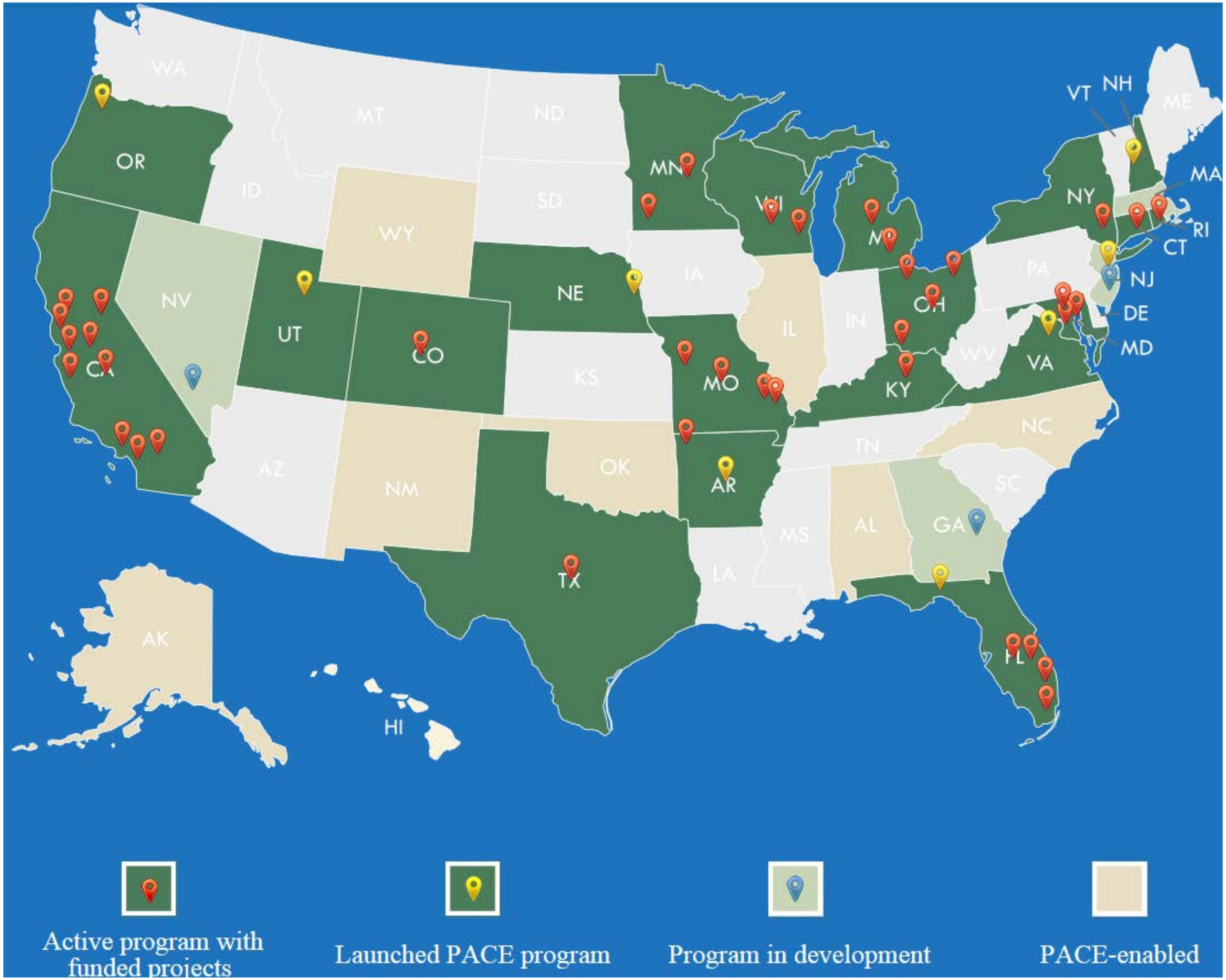
- **Target Audience**

  - Program sponsors (state and local governments, other quasi-public entities) at the early stage of program development.

- **Objective**

  - Fast track the set-up of C-PACE programs by capturing lessons learned from early leaders.

Overview of C-PACE Enabling Legislation & Programs



Credit: PACENation, April 2018

C-PACE Market and Opportunity

C-PACE OVERVIEW

$583

Millions

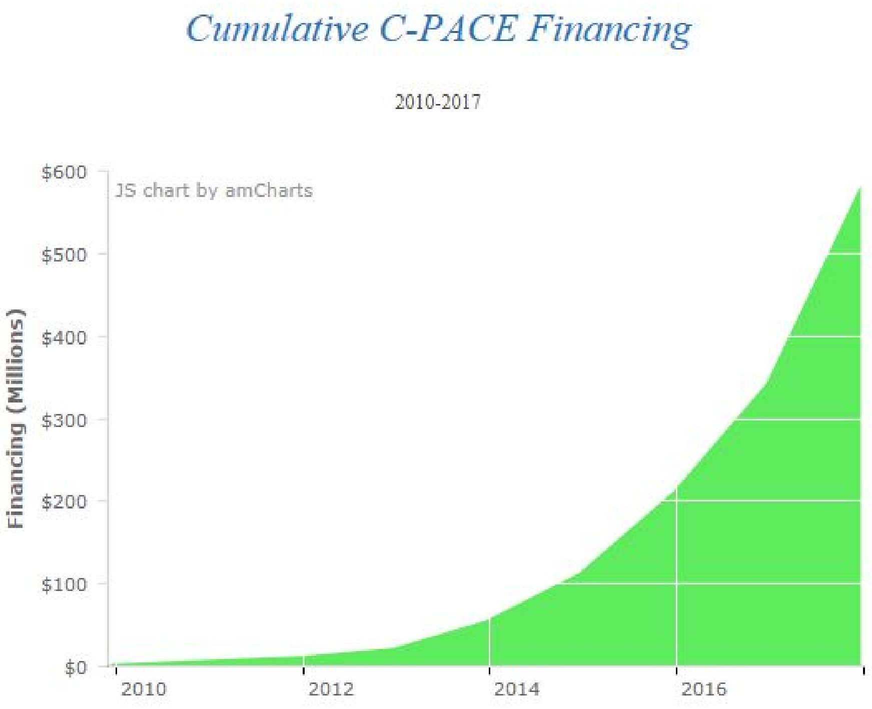
1230

Commercial projects

8,745

Jobs created

(Source: 15 jobs per million, EcoNorthwest)



Credit:
PACENation Market Data,
Accessed April 26, 2018

Lessons in C-PACE: Approach and Structure

- **Approach**
  - Steering Committee

    States (VA, CO, UT, TX), Joint Powers Authorities (CA), Capital Provider (PACE Equity)
  - Stakeholder Interviews

    Experts (e.g., PACENation), Capital Providers, Program Administrators, State and Local Governments

- **Structure**
  - Stage 1: Enabling C-PACE Financing
  - Stage 2: Setup and Program Guidelines
  - Stage 3: Program Launch
  - Additional

    Glossary of Terms, Links to Additional Resources from NASEO, PACENation, Capital Providers, etc.

Stage 1: Enabling C-PACE Legislation (pt. 1)

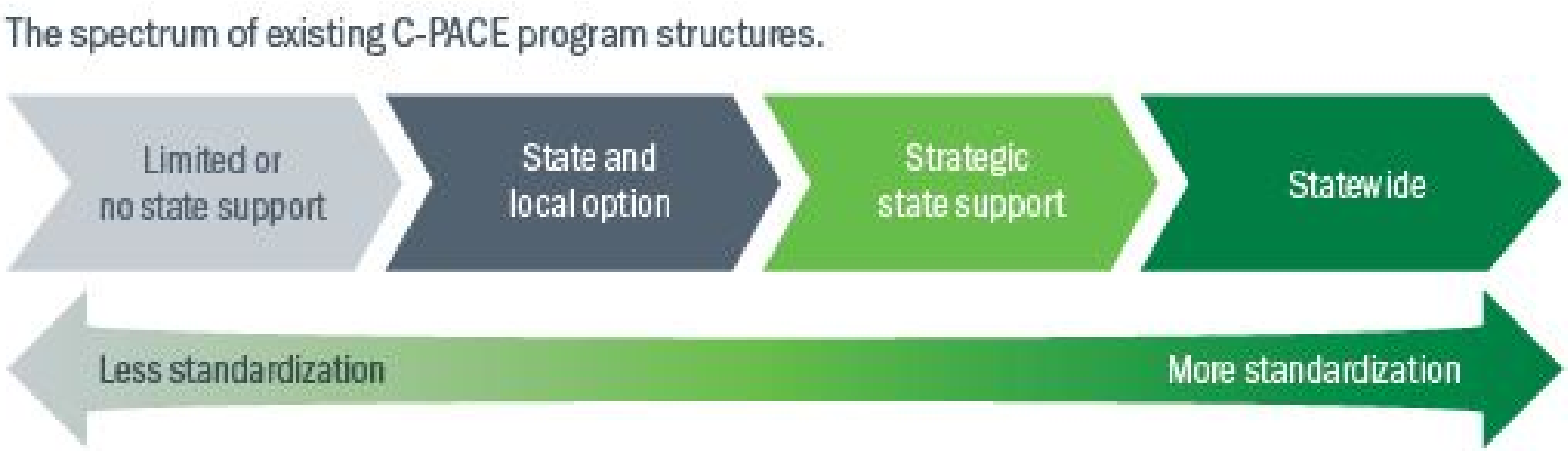
- **What should enabling legislation address?** ***Important components to address in legislation include:***
  - Definition and treatment of assessments
  - Authorizations to set up special assessment districts, levy assessments, enforce and (potentially) assign liens, issue bonds, collect fees, and engage with third parties
  - Requirements for consent from existing mortgage holders
  - Program capitalization
  - General categories/technologies of allowed improvements
  - Underwriting and qualifying guidelines
  - Guidelines on audits, energy savings projections, and M&V

Lesson From the Field: No. 1

- **Getting the enabling legislation "right" the first time is difficult. Many states have gone back to their C-PACE enabling legislation to make amendments:**
  - CO: Removed prescriptive tax collection language and instead referred to existing tax collection law.
  - CA: Added water efficiency measures to qualify for C-PACE.
  - UT: Added third party financing option; previously required bonds.
  - NY: Increased its loan-to-value ratio requirement from 10% to 35% of the property's value.

Stage 1: Enabling C-PACE Legislation (pt. 2)

- **What are the options for program administrative structure?**



Examples of program administrative structures by state

CA, OH	NY, MI	TX	CT, CO

Credit: Framework derived from National Association of State Energy Officials; *Accelerating the C-PACE Market*, 2016

Stage 2: Setup and Program Guidelines (pt. 1)

- **How can projects be capitalized and who can capitalize them?**
  – Projects are generally funded through either bonding or direct third party funding. *State and local sponsors have moved towards a preference for direct funding.*
    - *E.g., Bonds:* California Joint Power Authorities.
    - *E.g., Direct Third Party:* UT legislative amendment from 2017.
  – Programs can either be closed market, where one capital provider is the sole program funder, or open market, where multiple capital providers compete to fund projects. *Recently, program sponsors are predominately launching open market models.*

Lesson From the Field: No. 2

- **The funding process – how funding is first disbursed for the project and subsequently repaid – contains opportunities for improvement and innovation:**
  - CT: The original C-PACE statue allowed the lien to be recorded only once the work was complete. This created construction period risk capital providers were uncomfortable with; the Connecticut Green Bank decided to use its' own funds to overcome this risk.
  - TX: Borrowers can repay lenders directly sidestepping the tax collection mechanism and a potential burden on local governments.
  - CO, RI: State agencies were authorized to take on some roles such as tax billing, collecting, and remitting of payments.

Stage 2: Setup and Program Guidelines (pt. 2)

- **What and who can qualify for the program, and how can they be qualified?**
  - Enabling legislation, program guidelines, and capital provider underwriting practices often dictate this decision.
  - Common criteria for eligibility include:
    - Lender consent from mortgage holder;
    - Proof of ownership;
    - Current on taxes, mortgage payments, other obligations;
    - No outstanding grievances (e.g., property in foreclosure).
  - Other criteria for qualifying for C-PACE financing may include:
    - Financial limits (e.g., debt-service coverage ratio, combined loan to value ratio and C-PACE assessment to value ratio);
    - Minimum savings-to-investment ratios (SIR) requiring that savings are greater than repayment obligations.

Stage 2: Setup and Program Guidelines (pt. 3)

- **How are energy savings and other impacts estimated and documented?**
  - Projecting and documenting energy cost savings may add costs to a project, but can demonstrate value and congruence with policy goals. Key decisions include:
    - Whether to include an energy audit (and what level of audit);
      - *E.g.*, Texas PACE Authority follows Investor Confidence Project Energy Performance Protocols
      - *E.g.*, San Francisco and some Florida programs require lower-level ASHRAE audits for projects <$100,000
    - Whether to require or encourage an SIR > 1;
      - *E.g.*, Wisconsin requires SIR>1 on projects >$250,000
    - Whether to require or encourage an EM&V component.
      - E.g., Connecticut Green Bank has funded whole-building data collection and project performance M&V since 2013

Stage 3: Program Launch (pt. 1)

- **What stakeholders are essential to engage?**
  - Stakeholder engagement throughout the development of a C-PACE program is critical. There are numerous parties with an interest in ensuring a well-designed, successful program, including:
    - Community Leaders
    - Local Governments (e.g., tax offices)
    - Building Owners
    - Contractors
    - Utilities
    - Capital Providers
    - Existing Mortgage Holders

Lesson From the Field: No. 3

- **Thoughtful and efficient engagement with stakeholders can keep costs down and ensure program success:**
  - UT, MI: Reaching out to local governments to adopt or join a PACE program is most effective when there is a property owner in that local government ready to use C-PACE financing.
  - CT: Regular contractor training and an emphasis on how C-PACE can expand contractor business opportunities drives the C-PACE project pipeline; among contractors that have attended workshops, 25% to 30% have submitted a project application.
  - TX: Early engagement with Chambers of Commerce and Economic Development Authorities served to educate bankers and lead to more lender consent.

Stage 3: Program Launch (pt. 2)

- **What are the start-up and ongoing costs?**
  - C-PACE programs are appealing because they can be developed and administered without public funds. The costs to run the program are frequently recovered through program-generated fees, including:
    - One-time fees as a percentage of the financed amount;
      - *E.g.*, Texas has a separate fee for projects above/below $5 million.
    - Annual fees as a percentage of outstanding balance;
    - An "adder" to the assessment interest rate;
      - *E.g.*, Minnesota adds .5% to interest rate.
    - Fees not charged as a percentage of costs (e.g., an application or title search fee).

Takeaways: *Lessons in C-PACE Leadership*

1. There are multiple approaches to setting-up C-PACE programs. The market is trending towards some models (e.g., open market and third party financing).
2. There is a role for market actors and states in reducing the burden on local governments as it relates to program set-up, administrative responsibilities, and cost/risk management.
3. Capital providers are eager to invest in projects originated from *well-designed* C-PACE programs.*
4. *Lessons in C-PACE Leadership* aims to fast track program setup and reduce the burden on program sponsors.

* See: *Elements of a Well-Designed C-PACE Statute and Program to Attract Private Capital and Foster Greater Transaction Volumes*, 2018; Available at PACENation.

Next Step: DOE's C-PACE Working Group

The C-PACE Working Group is a cohort of state and local governments working together to learn about, launch, and refine commercial property assessed clean energy (C-PACE) programs. This U.S. Department of Energy initiative will leverage technical assistance from leading C-PACE experts and market partners to:

- Develop tools and solutions to barriers facing state and local governments;
- Convene and create peer exchanges to showcase public-sector leadership and effective public-private partnerships; and
- Provide information from leading technical experts.

The goal of these efforts is to stimulate an investment of **$60 million** C-PACE investments by 2022.

Thank You

Presenter
Sean Williamson
U.S. Department of Energy
Partnerships and Technical Assistance
T: 202-287-6673
Sean.Williamson@ee.doe.gov

Lead Author: *Lessons in C-PACE Leadership*
Greg Leventis
Lawrence Berkeley National Lab
Electricity Markets and Policy Group
T: 510-486-5965
gleventis@lbl.gov

State and Local Solution Center
http://energy.gov/eere/slsc/state-and-local-solution-center