Evaluation of PACE administrative structures

Overall Conclusions

1. Statewide Cooperation and Consistency Is Critical for PACE to be Successful in Virginia

Property Assessed Clean Energy (PACE) Financing has the potential to unlock demand for energy efficiency projects across the Commonwealth. However, in order for PACE to be successful in Virginia there must be some level of coordination and consistency across the state.

Since 2009, PACE financing has been used to fund over $175 million of commercial clean energy projects across the country[1]. The majority of these projects were located in just three states, California, Connecticut, and Ohio[2]. In Connecticut's C-PACE program – to date the most successful in terms of volume - a centralized administration structure is one of the key components for its success. There are several compelling reasons why a statewide, or regional, PACE administrator is beneficial for most states, including Virginia as only a handful of states around the country have metropolitan areas with the market potential to support a standalone PACE program.

2. Sufficient Investment in Marketing and Outreach is Critical

As with any business, in order for a market-based PACE program to be viable, it must achieve a minimum level of project volume (i.e. revenue) to cover operating costs. Based on conversations with other PACE programs across the country, the minimum annual volume of PACE projects necessary to sustain a viable PACE program is between $10 to $20 million[3]. As of Q3 2015, few commercial PACE programs across the country have been able to achieve this level of project volume and, thus, have struggled to cover administration costs solely through project fees. This lack of project volume is partly due to the fact that PACE financing - like other energy efficiency financing products - is relatively new, and has not yet received mainstream market acceptance. As with any budding enterprise, a new PACE program must progress through an initial ramp-up period, likely operating at a loss in the short term in anticipation of earning a sufficient return over the long term as the market matures. Sufficient investment in marketing and outreach efforts is critical in this early stage to drive market demand and prove the business model with some early wins.

Based on the exponential growth in PACE projects over the last several years, it is clear that the nationwide PACE market is beginning to mature (see **Figure 1**). At the local level, the challenge for nascent PACE programs is surviving the ramp-up period while the local market for PACE matures. Anecdotal evidence from PACE programs across the country would suggest that PACE programs should focus resources on developing the demand for clean energy projects and PACE financing through aggressive marketing and outreach efforts. However, even with extraordinary marketing efforts, the success of a PACE program ultimately depends on the potential market size.

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[1] Commercial PACE Market Update, Q3 2015, PACENation
[2] Commercial PACE Market Update, Q3 2015, PACENation
[3] Assumes a 2 to 3.5% origination fee and nominal ongoing servicing fee.

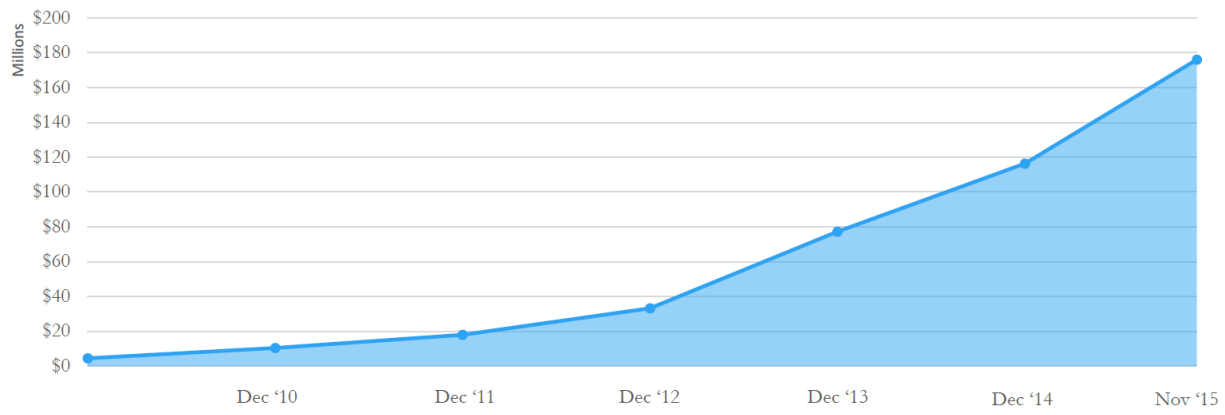

Figure 1: Cumulative Total C-PACE Funding (2009-present)

Factors Determining the Minimum Area Covered by a PACE Program

Determining the potential market size for PACE financing in a given jurisdiction is an inexact science at best. However, there are a number of important factors that should be considered when determining the size of the geographic and political area that a PACE program must cover to reach a break-even project volume.

Strength of the Local Real Estate Market

The first factor is simply the characteristics of the regional commercial real estate market. Physical characteristics of the market such as number of buildings, average age, average size, number of years since last retrofit, etc. are important metrics when determining how big an area must be to support a profitable PACE program. Economic factors that depress real estate values in an area may also affect demand for PACE financing by limiting the number of capital providers willing to fund PACE projects or by increasing the reluctance of mortgage lenders to consent to PACE assessments. These constraints can be mitigated through various credit enhancements that would likely need to come from the public sector.

Energy Supply Costs

A second important factor determining potential demand for clean energy project financing in a particular area is the per-unit cost of energy (e.g. $/kwh). Quite simply, all else being equal, demand for PACE financing is greater in areas with higher energy supply costs. This is one important factor that has contributed to the success of PACE in Connecticut and California.

Energy Usage

A third important factor is the total energy demand based on the types of uses in the state and the area's climate. States with hot summers and a predominance of energy intensive businesses would likely experience a higher demand for energy efficiency and therefore, PACE financing than areas with more moderate climates and buildings with relatively low energy consumption.

Access to Support Structures

A PACE program may be able to limit operating costs, and operate effectively in a smaller geographic area, if support structures are in place that would help defray a portion of the administration costs. For example, states with Green Banks such as Connecticut may be able to dedicate some of those funds to help reduce the burden of some of the administration costs. Another potential option to reduce operating costs would be to partner with an entity that is focused on providing services to a particular sector (e.g. affordable multi-family) or particular region (e.g. regional planning district or economic development authority).

Consistency and Simplicity

Property owners and contractors are more likely to participate in PACE financing if the rules and processes are clear, consistent, and relatively simple. A single statewide PACE administrator would help deliver this needed consistency.

Evaluation of Program Administrative Structures

Municipalities that are considering launching their own PACE program have many options to consider in determining how their program should be structured and administrated. Please see Appendix A for an overview of the state programs discussed in this section.

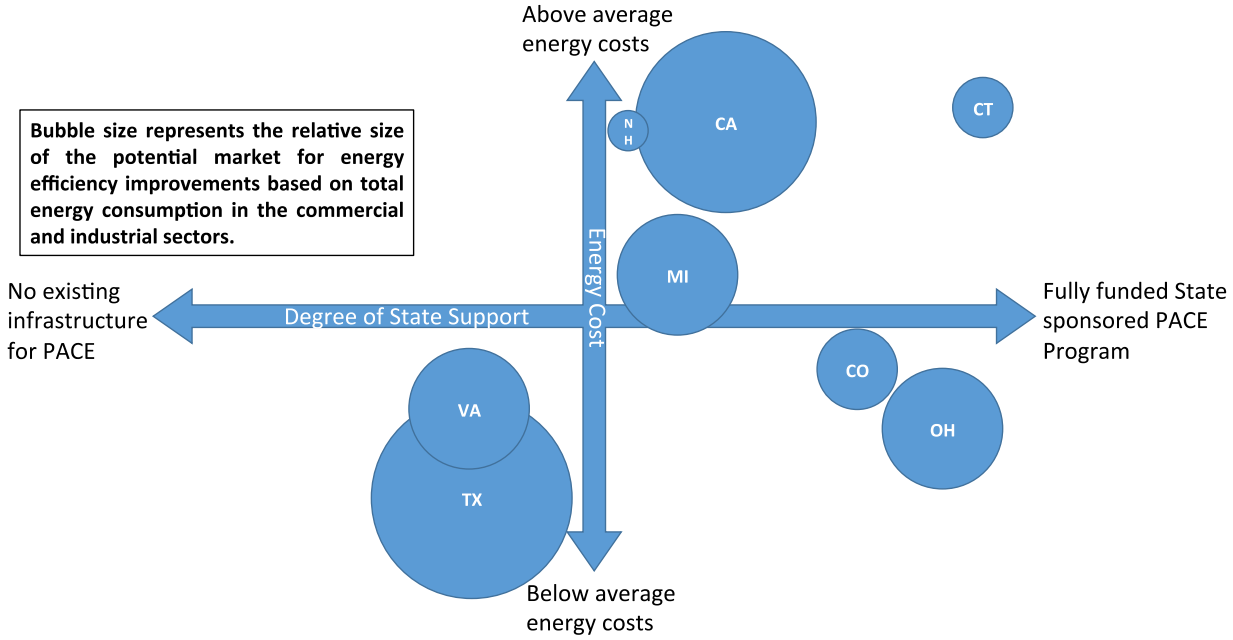

Figure 2: Analysis of PACE programs

Established Programs

Connecticut: C-PACE Program

www.cpace.com

- **Live** since 2013
- **Projects funded**: 89[4]
- **Project volume**: $54 million[5]

State Sponsored PACE Administrator: Yes
ACEEE State Scorecard Rank: 6
Energy Disclosure Law: No

Connecticut is second only to California in the total volume of PACE projects funded to date. As of the 3rd Quarter of 2015, Connecticut's C-PACE program has closed more than $54 million of PACE Financing. This is an impressive feat given that Connecticut's population is less than 10% of California's and, besides Fairfield County, has few metropolitan areas with a commercial real estate market large enough to support a stand-alone PACE program. However, Connecticut's small geographic area and high density (more than three times as dense as Virginia) greatly reduces the cost to travel the state to work directly with municipalities and other stakeholders.

One of the most important factors to Connecticut's success is the fact that the state has the highest energy costs in the continental United States. As such, the state has committed significant resources to promote energy efficiency and renewable energy[6]. Specifically, Connecticut was one of the first states in the country to develop a green bank to provide funding for energy projects in the state. The Connecticut Green Bank is a quasi-governmental entity with a $70 million annual budget that is funded primarily through utility ratepayer fees.

Connecticut's Green Bank administers the C-PACE Program and provided much needed funding to design and implement the program. In addition, the green bank used its own capital to prime the market for PACE financing by creating a warehouse fund to finance PACE projects. In 2013, this fund provided capital for 100% of projects funded and offered interest rates that were below market. Since then, the program has attracted a number of private capital sources and the program expects to reduce the green bank's direct funding of projects to 14% of total project volume in 2015 and beyond[7]. Furthermore, the Green Bank reportedly no longer offers below market interest rates.

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[4] C-PACE Q3 2015 Newsletter
[5] C-PACE Q3 2015 Newsletter
[6] ACEEE: State and Local Policy Database (http://database.aceee.org/state/connecticut)
[7] In December 2015, the Green Bank announced a new commitment by Hannon Armstrong to provide access to $100 million in funding for clean energy projects, including PACE (http://westfaironline.com/76458/green-bank-collects-new-access-to-financing/)

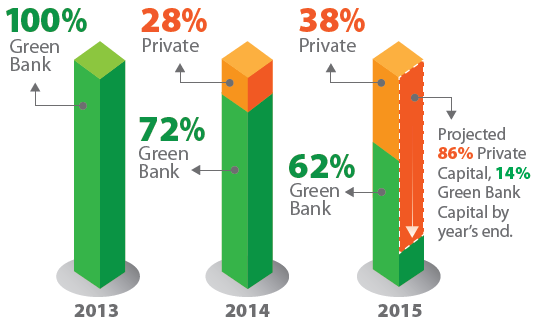

Figure 3: C-PACE financing by Capital Source[8]

Geographic Coverage

The C-PACE program is available to any municipality in Connecticut. Municipalities can join the C-PACE program by passing a resolution through their legislative body and entering into a Legal Agreement with The Connecticut Green Bank[9]. To date, 111 Connecticut cities and towns, encompassing a majority of the state's population, have entered into this agreement and have access to C-PACE financing[10].

Program Design

The initial program design effort was funded by the Connecticut Green Bank. The C-PACE program was to be simple and inexpensive for Connecticut's municipalities to participate. C-PACE handles almost all of the administrative tasks on behalf of the participating municipalities. The municipality's primary responsible is the billing and collection of PACE assessment payments.

The Green Bank developed a set of technical standards by which all PACE projects are evaluated. Working with a technical administrator, the program developed an online C-PACE Data Management Platform (CDMP) into which project participants can enter project information and supporting documentation. Although contractors had to be trained on this tool, it helped improve the consistency of project information and streamlined the underwriting process.

Marketing and Outreach

The C-PACE program conducts extensive marketing and outreach to the key stakeholders: municipalities, property owners, contractors, capital providers, and mortgage lenders.

Contractor Training

Contractors who are interested in offering PACE finance to their customers must attend a full day training session conducted by the C-PACE program. This training covers the project underwriting standards and provides attendees with an overview of the online tool that contractors must use to record and track project information. The C-PACE program charges a nominal fee for this training to cover expenses.

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[8] Connecticut Green Bank C-PACE Program

[9] The Connecticut Green Bank Municipality Agreement can be found in Appendix B of the Connecticut Green Bank C-PACE Program Guide (http://www.cpace.com/assets/pdf/Program_Guidelines.pdf)

[10] Connecticut Green Bank C-PACE Program

Property Owners

The C-PACE program works closely with property owners to educate them about the program. The program also helps building owners find qualified energy auditors.

Municipality's Role in Marketing and Outreach

Municipalities that opt into the C-PACE program agree to assist in marketing and outreach to their local business community. This may include such efforts as posting program information on the Municipality's website, sending letters to local businesses, or hosting business roundtable event. Participating municipalities also agree to assist in gathering information necessary for the Green Bank to provide funds for C-PACE program. For these services, the Green Bank pays the Municipality an annual fee of $500. The Green Bank can also reimburse the Municipality for reasonable costs and expenses that exceed the annual fee.

Access to Capital

The C-PACE program was the first PACE program in the country to successfully securitize a bundle of Commercial PACE assessments. In Spring 2014, the Green Bank issued the security backed by $30 million of PACE assessments (approximately 30 projects), which was purchased by Clean Fund, a PACE capital provider based in the San Francisco Bay area. The Green Bank used the funds received from this sale to replenish the warehouse line.

Collections and Disbursement

Municipalities are responsible for collecting PACE assessment payments and remitting them to the C-PACE program. The C-PACE program is responsible for routing payments to the appropriate capital provider.

The C-PACE administrator provides the Municipality with an annual report detailing each commercial property that has an active PACE Assessment or that has a PACE Assessment which was paid off during the previous year.

Administrative Budget

The C-PACE program charges fees which are bundled into the project amount for the required energy audit, closing fees as well as in the rate which is for management of the note over the term. Given its central role to date, the CT Green Bank has a relatively large budget for administrating the program including marketing and outreach, consulting, measurement and verification, and training.

Project Development

See Appendix B: Connecticut C-PACE Project Development Process

California: CSCDA Open PACE program (aka California First and Alliance NRG)

www.californiafirst.org and https://www.alliancenrg.com/retail/

- **Live** since 2009
- **Projects funded**: ~$50 million[11]
- **Project volume**: 70+ projects[12]

ACEEE State Scorecard Rank: 2
Energy Disclosure Law: Yes

As the state where PACE was invented, California has several live Commercial PACE programs in the majority of jurisdictions across the state. Due to the complexity of the market, this report will focus on the programs under the CSCDA Open PACE Program. The California Statewide Communities Development Authority ("CSCDA") is a statewide joint powers authority sponsored by the California State Association of Counties and the League of California Cities and created to provide local governments with effective tools for financing community-based public benefit projects. CSCDA developed the Open PACE Program specifically to provide municipalities within the CSCDA with an easy low-cost way to offer PACE financing within their communities.

Residential PACE Provides Cover for Commercial PACE in California

Unlike most states that allow PACE, California is the only state that has developed a robust residential PACE market in spite of the FHFA's (Federal Housing Finance Agency) objections. This is due in part to the state government's creation of a $10 million loan loss reserve that holds lenders harmless in the event of borrower default. As of the end of 2015, the volume of residential PACE projects closed nationwide was more than $1.4 billion, almost 8 times the volume of Commercial PACE projects (Pacenation.us) and the majority by one provider, Renovate America. The robust market for Residential PACE in California has allowed PACE administrators to be more patient with the development of the Commercial PACE market.

CSCDA's Commissioners pre-qualified and appointed two PACE Administrators to manage the CSCDA Commercial PACE program. This open market model allows for pre-qualified capital providers to bid on projects offered through the two administrators, promoting competition on terms, service and interest rates. The prequalified program administrators are AllianceNRG and Renew Financial (administering CaliforniaFIRST). Due to limited scope of this project, the structure of one open market program administrator, CaliforniaFIRST is discussed below.

Geographic Coverage

Counties and cities that are members of CSCDA can opt into the program. As of the fourth quarter of 2015, almost 40 counties were participating in the program including the 10 most populous counties in the state.

[11] Estimate based on data from PACENation
[12] Estimate based on data from PACENation

Program Design

Financing Structure

CaliforniaFIRST allows for two primary ways to finance projects, stand-alone bonds and pooled bonds.

Stand-Alone Bonds

The CSCDA normally issues a bond to a capital provider to fund a project at a single property. Capital providers can customize transaction timing, interest rate, and payback term. The property owner can choose the capital provider that offers the most attractive terms.

Pooled Bonds

"Pooled Bonds" are bonds that are secured by the PACE assessments of a number of properties. In order to underwrite a pooled bond, many of the terms must be standardized across all of the projects in the pool. It also requires that property owners be willing to wait while a minimum number of projects are aggregated for the pooled bond.

CaliforniaFIRST's pooled bond financing is primarily for property owners with projects between $50,000 and $500,000. The pooled bond financing allows these small projects to share transaction costs. This program is in its infancy and may have some proverbial kinks to work out as the program develops.

Marketing and Outreach

CaliforniaFIRST has developed a website and program materials for property owners, contractors, and municipalities and has a business development team that is responsible for educating property owners and contractors about the CaliforniaFirst program.

Access to Capital

With the CSCDA, PACE financing will generally involve the issuance a bond that is secured by the PACE assessment of a single property. However, several smaller underwritten projects may be aggregated into a single bond. Recently, Hannon Armstrong has teamed with Renew Financial to provide a dedicated lending source to fund projects $250,000 and above. However, CaliforniaFirst is still technically an open market model so property owners can bring their own capital providers to fund their projects through the program.

Collection and Disbursement

Participating municipalities are responsible for placing PACE assessments on the tax rolls and collecting and distributing PACE assessment payments. These costs are reimbursed through fees placed on the projects.

Administrative Budget

CaliforniaFirst charges several fees on each project to cover operating costs.

Project Development

See Appendix C

Michigan – Lean and Green Michigan

www.leanandgreenmi.com

Lean and Green Michigan is creating a statewide PACE program with no government support and a model that does not require a long-term commitment from participating municipalities.

- **Live** since June, 2012
- **Projects funded**: 4[13]
- **Project volume**: ~$1.5 million[14]

ACEEE State Scorecard Rank: 14
Building Energy Disclosure: No

The State of Michigan is similar in many ways to Virginia, which makes it an informative case study. Both states have similar populations and have few metropolitan areas large enough to support stand-alone PACE programs. The potential market size based on statewide energy consumption is also quite similar between the two states.

Unlike Connecticut and Colorado, the State of Michigan does not provide direct support for a statewide PACE program. However, Michigan does allow for the creation of regional PACE programs administered by one central authority. In Michigan, the push for a statewide program is being driven by Lean & Green Michigan, a private organization that is partnering with municipalities across the state to offer PACE financing. In exchange for a handshake commitment to make Lean and Green Michigan the administrator, municipalities receive a turnkey PACE program. The municipality simply agrees to use Lean & Green Michigan's template for their local PACE legislation and informally designates Lean & Green to be the program administrator. The municipality pays nothing to initiate the PACE program or for ongoing program administration. The municipality also bears no financial risk and has the right to replace Lean and Green as the administrator at any time.

Geographic Coverage

Michigan's enabling legislation allows jurisdictions to create shared PACE districts. The program developed by Lean & Green Michigan is open to any jurisdiction that opts in by passing a local ordinance. As of the fourth quarter of 2015, 17 counties and 6 individual cities have joined the Michigan Lean & Green program[15]. This includes 7 of the 10 most populous counties in the state.

Although Lean and Green Michigan is a private organization, participating municipalities are not required to go through a procurement process to sign onto the Lean and Green Michigan platform. This

[13] Ann Arbor, Michigan had its own PACE program in 2012 funded through ARRA funds which closed 4 PACE projects totaling $560,000 in project volume. This program was discontinued due to lack of funding.
[14] IBID
[15] Lean and Green Michigan (www.leanandgreenmi.com)

is due to the fact that there is no formal contract between Lean and Green Michigan and the Municipality, and Lean and Green Michigan does not receive any direct compensation from the municipality.

Marketing and Outreach

Lean and Green Michigan has a website which describes the program and provides resources for contractors, property owners, municipalities, and capital providers. In addition, Lean and Green Michigan invests significant time traveling across the state to attract municipalities to join the Lean and Green PACE network.

Lean and Green Michigan also holds periodic contractor training sessions. Contractors who want to access PACE financing through this program are required to attend a training session and register with Michigan Saves, a non-profit organization that vets clean energy contractors. This partnership removes the burden of verifying license and insurance requirements from Lean and Green Michigan. As of the 4th quarter of 2015, almost 50 contractors have registered.

Access to Capital

Lean & Green works with private capital providers that express interest to fund PACE projects.

Collection and Disbursement

Participating municipalities are responsible for placing PACE assessments on the tax rolls and collecting and distributing PACE assessment payments. These costs are reimbursed through fees placed on the projects.

Administrative Budget

Lean and Green Michigan charges administrative fees on each project to cover operating costs.

Project Development

The administrator processes project applications and works with property owners and contractors to develop projects and develop PACE terms.

New Programs

There are several new statewide PACE programs, which provide insight into Virginia's efforts to implement PACE.

Colorado: C-PACE Program

www.copace.com

Colorado launched a statewide PACE program and has committed to fund program administration during the ramp-up phase

Live since 2015
Projects funded: 0[16]
Project volume: $0
State Scorecard Rank: 12
Building Energy Disclosure: No

Key takeaways:

Colorado's statewide Commercial PACE program (Colorado C-PACE) officially launched in December 2015. This is Colorado's second attempt at Commercial PACE. In 2009, Boulder, Colorado launched its own PACE program using ARRA (American Recovery and Reinvestment Act) funds and QECB (Qualified Energy Conservation Bonds). By offering a below market interest rate, Boulder was able to quickly fund 29 projects totaling $1.4 million in project volume. Ultimately, the small size of the Boulder market, the challenges with funding small projects, and the prohibition by the Federal Housing Finance Agency (FHFA) against PACE resulted in Boulder closing its program in 2010. Colorado's updated PACE enabling legislation established the Colorado New Energy Improvement District (NEID) within the Colorado Energy Office to create a statewide Commercial PACE program. NEID selected SRS to be the PACE administrator responsible for the day-to-day coordination and delivery of the Colorado C-PACE program.

Outside of Denver, the state of Colorado has few municipalities with a potential market large enough to justify a standalone PACE program. This is one of the reasons why Colorado has dedicated funds to the administration of a statewide PACE program during a limited ramp-up period. Like Virginia, Colorado also has below average energy costs compared to the national average.

Geographic Coverage

Colorado counties can opt into the CoPACE program through a resolution of their Board of County Commissioners. As part of the resolution, the county must enter into a NEID-County Participation Agreement. As of January 2016, Boulder County had signed onto the program and eleven other counties (including Denver County) were in discussions with C-PACE to join the program.[17] A copy of the Colorado C-PACE NEID-County Participation Agreement can be found on the program website (http://copace.com/wp-content/uploads/CoPACE_NEID-County_Agreement_Final_09-09-15.pdf).

[16] Boulder Colorado had its own PACE program in 2012 funded through ARRA funds which closed 29 PACE project totaling $1.4 million in project volume. This program was discontinued due to lack of funding.
[17] COPACE.com

Program Design

This program is currently under development with workshops underway to train contractors and capital providers. The draft of the program handbook was released in May 2015 and can be downloaded here: http://www.pacenation.us/wp-content/uploads/2015/05/CoPACE-program-guide_DRAFT-for-RFA.pdf.

As stated above, the program is predicated on counties in Colorado entering into the C-PACE Participation Agreement. Below is a basic diagram of the process for government eligibility into the program:

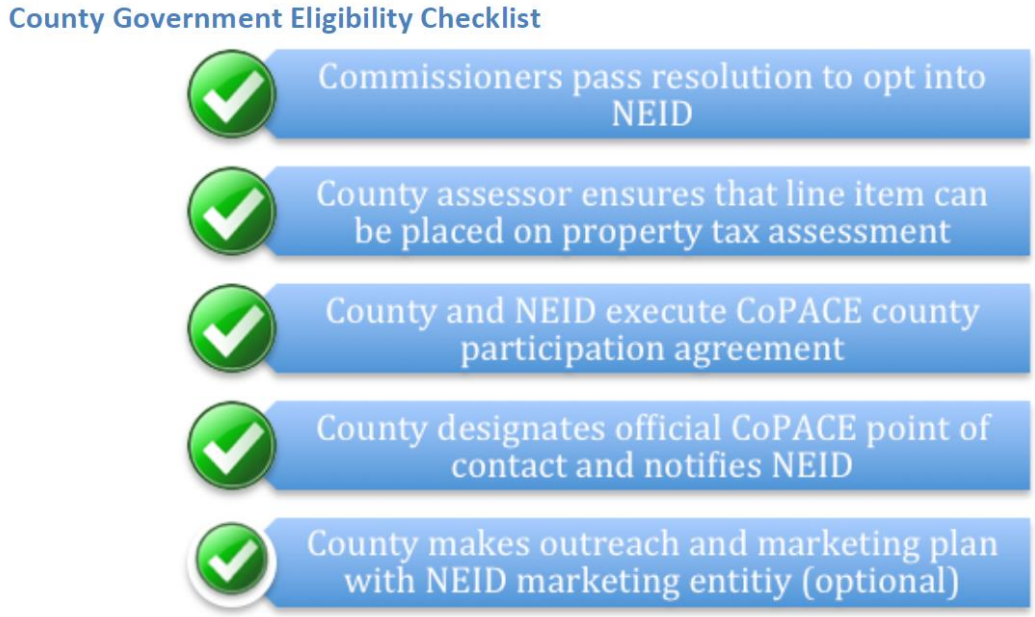


Figure 4: CoPACE Government Eligibility Checklist[18]

Marketing and Outreach

NEID and SRS are responsible for the development and maintenance of the Colorado C-PACE website, the creation of collateral materials, and the management of education, program outreach campaigns, and training sessions.

The municipality agrees to provide assistance to NEID's outreach, education and marketing efforts by connecting NEID with local county departments such as economic development, land use, or sustainability.

Contractor Training

Any contractor interested in participating in the C-PACE program must meet a set of eligibility requirements developed by the NEID and attend a mandatory program orientation session. The training sessions are offered free of charge and will begin in mid February 2016 as stated above.

C-PACE will also work with contractors after they have been trained to help them screen and prequalify projects to determine if they may be a good fit for PACE financing.

[18] CoPACE Program Guide (http://www.pacenation.us/wp-content/uploads/2015/05/CoPACE-program-guide_DRAFT-for-RFA.pdf)

Figure 5: Eligible Contractor Checklist[19]

Access to Capital

Colorado C-PACE is open to any capital provider who agrees to NEID's code of ethics and provides proof that they are an accredited investor. Approved capital providers will be listed on the Colorado C-PACE website and will be able to bid on any projects that come to the program without a capital provider already identified.

Collection and Disbursement

Once a project is complete, the county government is responsible for billing property owners for PACE assessment payments and distributing payments to the program administrator. Although the C-PACE program is designed to fit within existing county tax collection system, municipalities may have to make modifications to systems and processes to meet collection and disbursement requirements. Municipalities can recoup this cost by attaching a minimal fee to each PACE assessment bill.

The program administrator is responsible for ensuring that capital providers are paid.

In addition, C-PACE is responsible for providing municipalities with details regarding the properties and the amount of PACE assessments.

In the event of non-payment, the municipality is responsible for following the same process, as it would for property tax default.

[19] CoPACE Program Guide (http://www.pacenation.us/wp-content/uploads/2015/05/CoPACE-program-guide_DRAFT-for-RFA.pdf)

Administrative Budget

The C-PACE program is designed with the assumption that administration costs will be covered by fees collected on PACE projects. In the near-term, the Colorado Energy Office has dedicated funds to ensure that the program can cover its operating and start-up costs through the first few years. . The program has budgeted approximately $446,000 for administration costs in fiscal year 2016 (see the table below). The C-PACE program is currently designed to collect a fee of 2.5 percent of project costs.

Expenditure	**Budget**
Program Management	$89,130
Marketing Management	$224,250
Financial Management	$50,000
Office administration (i.e. accounting, etc.)	$20,000
Legal representation	$50,000
Events, conferences, sponsorships, etc.	$10,000
Membership Dues & Subscriptions	$1,500
Board Travel & Expenses	$1,500
Total Expenditures	**$446,380**

Table 1: Colorado C-PACE FY 2016 Budget[20]

Project Development

See Appendix D: Colorado C-PACE Project Development Process.

[20] NEID

Texas: Texas PACE Authority

www.texaspaceauthority.org

Delivering a turnkey "PACE in a Box" program that can be implemented across Texas.

Live since 2015
Projects funded: 1[21]
Project volume: $1.25 million [22]

ACEEE State Scorecard Rank: 26
Building Energy Disclosure: No

Texas is similar to Virginia in that both states have below average energy costs. Unlike Virginia, Texas is one of the largest states in the country with several large metropolitan areas that could potentially support standalone PACE programs. In addition, Texas has the highest total energy consumption for commercial and industrial users in the Unites States. These factors make Texas a potentially huge market for PACE financing. On the other hand, outside of the major populations centers Texas is sparsely populated and, in the contiguous United States, second only to California in geographic size. Spreading PACE across the state will require time and resources.

Like Michigan, the state of Texas does not provide direct support for a statewide PACE program but does allow for the creation of regional PACE programs administered by one central authority. As in Michigan, the push for a statewide program is being driven largely by one private sector entity, the Texas PACE Authority, a nonprofit organization created specifically to streamline the creation of PACE programs in Texas.

Geographic Coverage

Any municipality or county in Texas can establish a PACE district by preparing a public report and adopting a resolution of intent to create a local program. A public hearing must be held, and barring any opposition, a resolution establishing a local PACE program is passed. A municipality can choose to administer the program in-house or acquire the assistance of a third-party administrator for all or part of the administrative duties.

To date, two Texas municipalities, Travis County (includes Austin) and the City of Houston, have launched PACE programs and selected the Texas PACE Authority to be the administrator.

Program Design

Keeping PACE in Texas (KPT), a non-profit business association organized for the purpose of promoting PACE financing programs throughout the state of Texas, was initially created to build support for the state's PACE enabling legislation. After passage of the Texas PACE legislation, KPT then focused on program design. First, they organized an extensive group of stakeholders including property owners, lenders, energy service companies, industry trade associations, and local governmental authorities. This

[21] Texas Pace Authority (http://www.texaspaceauthority.org/)
[22] IBID

collaboration developed uniform standards, documentation, and best practices for PACE financing programs in Texas. The work of the coalition resulted in the publication of "PACE in a Box", a toolkit containing all the materials a municipality would need to establish a PACE program. These uniform PACE standards, systems and documentation can help to simplify the development and administration burden on local governments and also make PACE more attractive to property owners.

Marketing and Outreach

The Texas PACE Authority has a website which has materials for property owners, contractors, and lenders.

Access to Capital

The Texas PACE Authority is in the process of developing a preferred provider list of PACE lenders. The Texas PACE Authority does not formally approve lenders, but the state's enabling legislation limits the types of institutions that can provide funding for PACE assessments. The Texas PACE Authority will list lenders who meet the State's legislated requirements on its website.

Eligible lenders may include[23]:

- Any federally insured depository institution such as a bank, savings bank, savings and loan association and federal or state credit union;
- Any insurance company authorized to conduct business in one or more states;
- Any registered investment company, registered business development company, or a Small Business Administration small business investment company;
- Any publicly traded entity; or
- Any private entity that:
    - Has a minimum net worth of $5 million;
    - Has at least three years' experience in business or industrial lending or commercial real estate lending (including multifamily lending), or has a lending officer that has at least three years' experience in business or industrial lending or commercial real estate lending; and
    - Can provide independent certification as to availability of funds.

Collections and Disbursement

Once a project is complete, the local government has several options for billing property owners for PACE assessment payments and distributing payments to the program administrator. This function can be performed within the municipality or can be contracted out to another municipality or third party servicer.

Administrative Budget

As with all of the programs highlighted in this report, The Texas PACE Authority is designed to eventually cover all operating costs through fees charged on projects. Initially, the authority plans to charge two fees as part of administration - a one-time application fee and an ongoing fee paid through 25 basis points added to the interest rate charged.

[23] Texas PACE Authority

Breakdown of Texas PACE Authority Fees[24]:

- Application Fee
  - Amounting to 1% of total project cost
  - Initial $500 to be paid at application. Balance to be paid as part of loan closing as an origination fee.
- Ongoing Residual Fee of 25 basis points added to annual assessment.
  - Note: This fee can be capitalized and paid in full at closing.

Project Development

The primary activity of the Texas PACE Authority is to process applications for PACE funding. The Authority's application review process is based on the PACE in a Box model developed by the Keeping PACE in Texas consortium.

Technical Review

The Texas PACE Authority largely follows the Investor Confidence Energy Performance Protocols for technical review (see sidebar).

All projects must be audited by an independent third party reviewer. This reviewer must be a professional engineer and have one of the following credentials:

- American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE)
  - Building Energy Assessment Professional (BEAP)
  - Building Energy Modeling Professional
- Association of Energy Engineers (AEE)
  - Certified Energy Manager (CEM)
  - Certified Measurement and Verification Professional (CMVP)
  - Certified Energy Auditor (CEA)
- Building Commissioning Association
  - Certified Commissioning Professional
- Investor Confidence Project
  - Credentialed Quality Assurance Provider

Investor Confidence Project:

The Investor Confidence Project (ICP) is an Environmental Defense Fund program that has compiled a set of energy performance protocols that will help standardize project development. This includes a process for a project to be certified as an "Investor Ready Energy Efficiency" project. Similar to LEED certification, the aim is to provide some level of confidence to property owners and investors that projects have been developed to a specific level of quality. For more information on ICP visit: www.eeperformance.org

Financial Underwriting Review

The Texas PACE Authority conduct a financial review of the project and the property owner's ability to pay the PACE Assessment.

[24] Texas PACE Authority

New Hampshire: C-PACE

www.jordaninstitute.org

Not yet live
Projects funded: 0, the program is still in design phase
Project volume: 0

State Scorecard Rank: 20
Building Energy Disclosure: No

Key Takeaways:

New Hampshire is a small and sparsely populated state with few large cities. The average municipality in New Hampshire has 5,600 residents and the largest city has a population of 335,000. As such, although there is no direct state support for PACE, there is an effort to develop a statewide PACE program. Similar to Lean and Green in Michigan, the Jordan Institute seeks to be designated as the C-PACE Administrator by participating municipalities. The Jordan Institute is a non-profit organization dedicated to promoting energy performance in the built environment. They were instrumental in the development of New Hampshire's PACE enabling legislation. SRS, the program administrator for Colorado, is partnering with the Jordan Institute in developing the program.

One of the major differences between Virginia's PACE legislation and New Hampshire's is that in New Hampshire the PACE Assessment lien status is junior to any existing mortgages[25]. Another major distinction is that New Hampshire has the benefit of a central PACE collection and distribution process via the statewide entity known as the Community Development Finance Authority (CDFA).

Geographic Coverage

Any municipality in New Hampshire can create a PACE district. Given the low population in New Hampshire, most of the state's municipalities implement legislation once a year through an annual town meeting. This means that any municipality that wishes to pass PACE enabling legislation must act during the annual meeting or wait a full year until the next town meeting[26]. Most municipalities hold their annual town meeting on the same day. This date is known as "Town Meeting Day" throughout the state. The few larger cities in New Hampshire are governed under city council structures and hold regular legislative sessions where PACE enabling legislation can be introduced. The Jordan Institute is currently working with the city of Concord to develop New Hampshire's first PACE program.

Although it is likely cost prohibitive, individual municipalities have the ability to develop their own PACE program independently.

[25] New Hampshire Statute RSA 53-F (See section 8 for lien status language)
[26] From conversations with the Jordan Institute

Program Design

C-PACE in New Hampshire is a voluntary program that any of the 234 cities and towns in the state can opt into either through an annual town hall meeting or regularly scheduled city council meeting[27]. If the enabling legislation, RSA 53-F, is adopted, then the municipality is tasked with establishing an energy efficiency and clean energy district encompassing all or part of their jurisdiction. The municipality is then enabled to enter into an agreement with a public or private entity to administer the PACE program on its behalf, and may also enter into agreements with one or more other municipalities to share resources and streamline program administration. The outside administrator (likely to be the Jordan Institute and its partners) is then responsible for establishing fee schedules, documentation, and contacts with project investors. The municipality itself will mainly be responsible for administering the tax collection and lien process. New Hampshire legislation - RSA 53-F stipulates that the PACE lien is subordinate to the first mortgage. All privately owned properties – for profit and non profit - other than residential buildings with less than five units are eligible, and all PACE projects must have a savings to investment ratio > 1[28].

Marketing and Outreach

In the 2015 NH Legislative Session, Jordan Institute averted an effort to essentially repeal the PACE statute on constitutionality grounds with a major re-write, which ultimately met with unanimous support from both the House and Senate. Marketing and outreach has been targeted to stakeholders relevant to program launch - municipal officials, capital providers, building owners, and contractors/installers of energy efficiency and renewable energy projects.

Access to Capital

The Jordan Institute lists as hopeful investment partners, traditional banks and small-large lending institutions, groups of private individuals, investment and retirement funds, divest-invest groups, and the New Hampshire CDFA, a quasi public-private agency and primary partner of the Jordan Institute.

Collection and Disbursement

The municipality is responsible for making any necessary updates to tax software to allow for the billing and collection of PACE assessments. The municipality sends tax bills with special assessments to participating PACE borrowers.

The municipality is responsible for collecting PACE payments and forwarding the assessment payments to the New Hampshire Community Development Finance Authority (CDFA). As the quasi-governmental state agency responsible for developing some of the financing programs for community and economic development projects in New Hampshire, the CDFA has the ability and resources to manage the collection and distribution process.

[27] Jordan Institute Informational PowerPoint
[28] New Hampshire Statute RSA 53-F Text (sections 3 and 7)

Administrative Budget

The Jordan Institute plans to cover salary and expenses through fees charged on PACE projects. During the ramp up period, the Institute will rely on grants and philanthropic funding to cover expenses.

Project Development

The municipality takes on the responsibility for engaging with a program administrator, private or public (likely to be the Jordan Institute), to administer the C-PACE program should they choose to adopt the enabling legislation. The municipality will also be required to designate an Energy Efficiency and Clean Energy district within their jurisdiction in which PACE projects can take place. The Jordan Institute has targeted a number of small cities to start the adoption process and expects to spread the C-PACE model across the state within a few years. The municipalities within the state do not have the staffing, resources, or expertise to administer this type of program without significant support. By having a statewide administrator, processes, rules, and protocols will be consistent which will streamline project development and financing.

Appendix A: PACE State Details

State	Program	Year Launched	Projects Funded	Project Volume	Funding for PACE Admin	Capital Source	ACEEE State Scorecard Rank	Energy Disclosure Legislation	Green Bank	Average electricity cost ($/kwh)	C&I Electric Consumption (gwh)	Population Density/ sq. mi/ National rank	Metro Areas in top 25 largest CRE Markets
Connecticut	C-PACE	2013	89	$54 million	Connecticut Green Bank	Connecticut Green Bank and private capital sources	6	No	Yes	$0.155	16,500	743 (4)	1
California	California First	2009	70+	~$50MM	Private	Private Capital	2	Yes	In Development	$0.135	171,370	246 (11)	6
Michigan	Lean & Green Michigan	2012	4	$1.5MM	Private	Private Capital	14	No	No	$0.110	69,000	175 (17)	1
Colorado	C-PACE	2015	0	0	NEID	Private Capital	12	No	No	$0.094	34,850	51 (37)	1
Texas	Texas PACE Authority	2015	1	1.25MM	Grants and Donations	Private Capital	26	No	No	$0.086	238,480	101 (26)	3
New Hampshire	C-PACE	2016	0	0	Grants and Donations	Private Capital	20	No	No	$0.142	6,500	148 (21)	0
Virginia	TBD	2016	0	0	TBD	Private Capital	31	No	No	$0.091	64,900	209 (14)	1

Notes:

- ACEEE scores, energy disclosure and other information: http://aceee.org/sector/state-policy
- Average energy consumption and rate data comes from EIA: http://www.eia.gov/electricity/data/eia861/
- Population density data comes from the US census: http://www.census.gov/2010census/data/apportionment-dens-text.php
- The top metro areas data for commercial office space: http://www.us.jll.com/united-states/en-us/research/6647/US-Office-Outlook-Q4-2015-JLL

Appendix B: Connecticut C-PACE Project Development Process

The Connecticut Green Bank and its partners handle all aspects of the project development process. C-PACE follows a six-step project development process (see **Figure 6: C-PACE Process Flow Overview**).

1. ***Initial Application***

Property owners or contractors can apply for PACE financing directly through the C-PACE website. The program administrator is responsible for reviewing the application in a timely manner to confirm that the property is eligible for PACE and that all required information is provided. Assuming the initial application is in order, the program administrator will invite the applicant to submit a full application. The program administrator is also responsible for coordinating with the appropriate utility to take advantage of any available incentives.

2. ***Technical and Financial Review***

Once a full project application is received, the PACE administrator conducts a technical and financial review to ensure that the project meets the programs underwriting requirements. The Technical Administrator verifies that project costs and estimates of energy savings are reasonable and that the project's savings to investment ratio is greater than 1.

3. ***Technical and Financial Review***

Once the project has received technical and financial approval, the program administrator will work with the property owner to request consent from their primary mortgage lender to allow the PACE assessment to be placed on the property. This assistance involves standard forms and a technical report detailing the project.

4. ***Financing Agreement Between Property Owner and Green Bank***

Once lender consent has been obtained, the program administrator works with the property owner and the Green Bank to execute a financing agreement between the property owner and the Green Bank. This involves three distinct tasks. First, the PACE administrator submits the project to the Green Bank for final approval that the technical and financial underwriting criteria have been met. Once the project has been approved by the Green Bank, the property owner enters into a service agreement with the contractor hired to perform the work. Finally, the property owner enters into a financing agreement with the Green Bank.

For those projects funded through the Green Bank's warehouse facility, the Green Bank will set the interest rate on the PACE bond. For projects funded by private capital, the interest rate will be negotiated between the capital provider and the property owner. The Green Bank charges a closing fee based on a percentage of the total project cost to offset program administration costs.

5. ***Release of Funds***

Once the financing closes, the Green Bank provides the municipality where the property is located with the necessary documentation to file the lien to secure the repayment. The property owner is then able to draw upon funds based upon the service contract with their contractor.

6. ***Assessment, Payment, and Measurement and Verification***

The municipality is responsible for sending the periodic PACE Assessment bill to the property owner. When the municipality receives payment they remit the funds to the Green Bank. The municipality may keep an agreed upon percentage of the assessment to cover their expenses. If a property owner fails to make a payment, the Municipality is responsible for notifying the Green Bank in a timely manner. The Municipality has no obligation to collect delinquent PACE assessment payments unless it enters into a separate agreement with the Green Bank. This agreement can provide the municipality compensation for pursuing the collection of any delinquent assessment payments with the same diligence used in the collection of real property taxes, including the commencement of foreclosure proceedings.

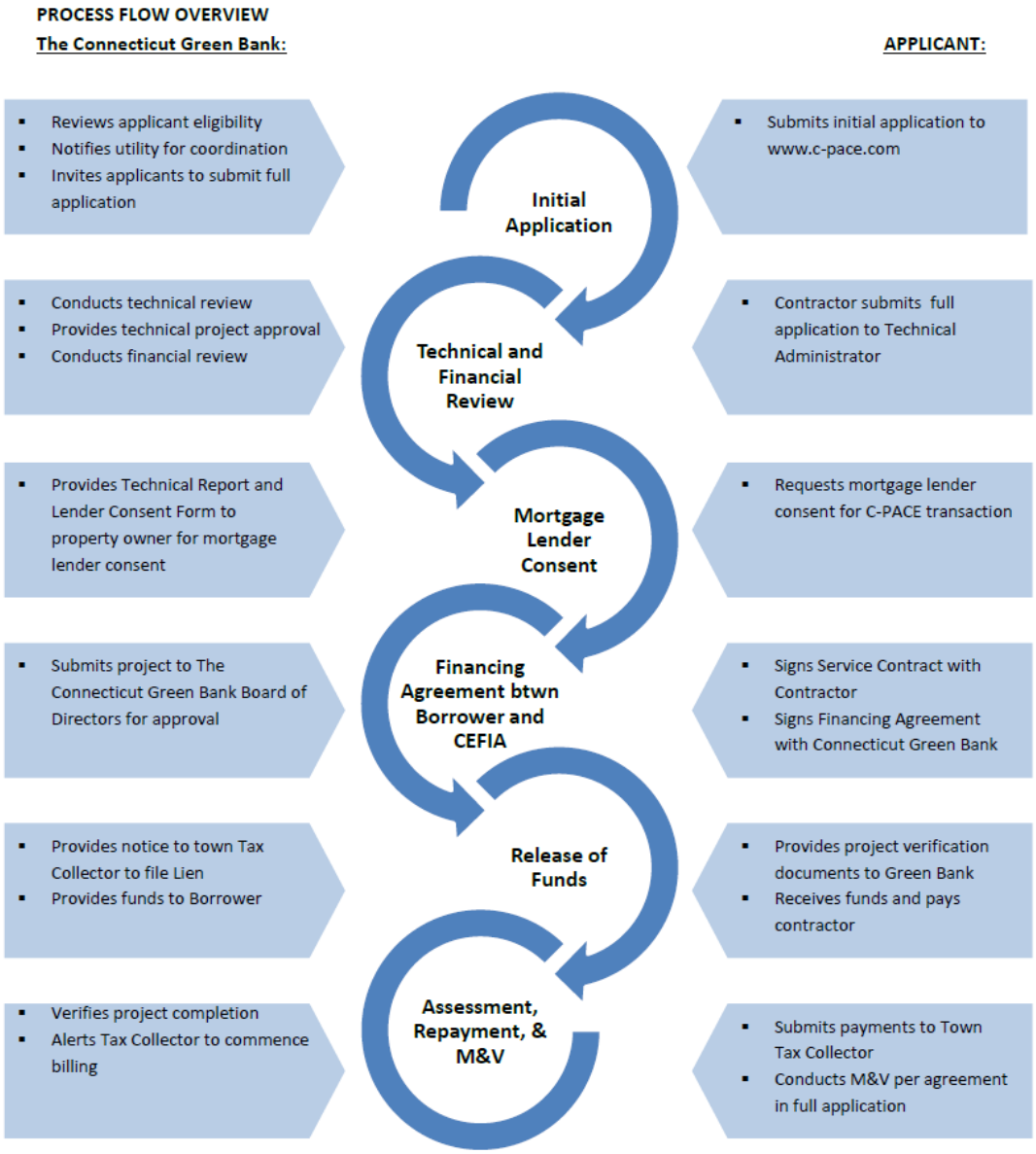


Figure 6: C-PACE Process Flow Overview[29]

[29] C-PACE Program Guidelines (http://www.cpace.com/assets/pdf/Program_Guidelines.pdf)

Appendix C: CaliforniaFirst Project Development Process

1. Initial Application

Property owners first submit an initial application to make sure that the proposed property and project are eligible for PACE financing.

2. Initial Reservation and Project Scoping

Once the program administrator has approved the initial application, a Conditional Reservation is issued to inform the property owner that the basic underwriting requirements have been met.

3. Final Application and Final Reservation

The property owner must submit the final project application within 90 days of receiving the Conditional Reservation. The final application will include details of the project including an accurate estimate of financing costs. The program administrator reviews the final application and issues a Final Reservation if all program requirements are met.

4. Assessment Contract and Lien Placement

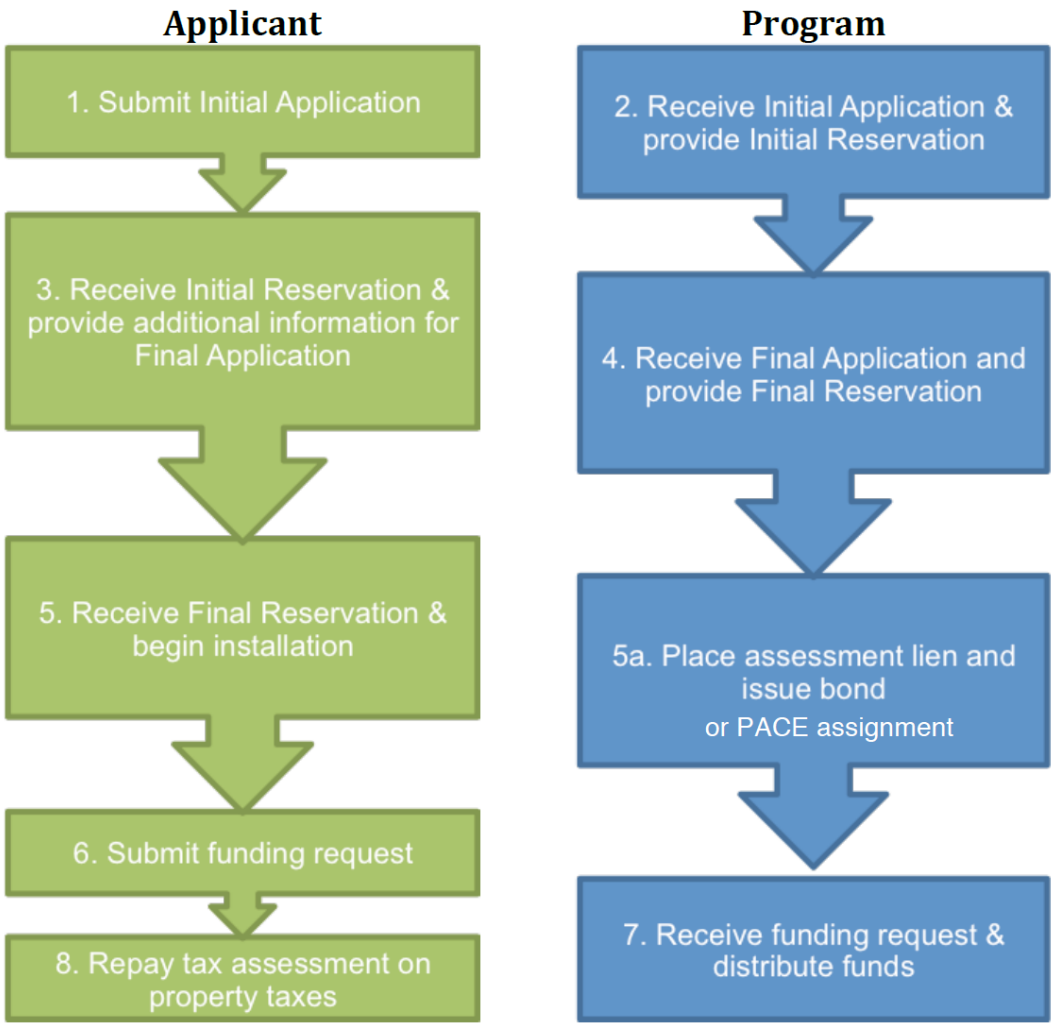
The assessment contract between the property owner and the participating municipality obligates the property owner to a PACE Assessment based on negotiated financing terms. Once the assessment contract is in place, the program administrator will execute financing documents with the capital source and a lien will be placed on the subject property.

5. Project Installation

Once the assessment contract and PACE lien are both in place, the funds will be placed in a trustee account and project installation may begin.

6. Funding Request and Payment(s)

As the project progresses, the property owner submits a Funding Request and verification materials to the program administrator. The program administrator reviews the request and distributes funds to the property owner or directly to the contractor.



*The Program process flow may vary from project to project.

Figure 7: California First Project Development Process[30]

[30] California First Program Handbook for Non-Residential Properties, 05/19/15, CSCDA

Appendix D: Colorado C-PACE Project Development Process

1. Initial Project Application

A property owner or contractor can submit an initial project application containing preliminary details about the project to Colorado C-PACE. The program will process project applications to ensure that the property is located within a municipality that has opted into PACE and the contractor has been qualified by the program.

2. Draft Project Finance Report

The contractor works with the property owner to collect financial information necessary to prequalify the project. The contractor also reviews the lender consent process with the property owner. The contractor then provides the Colorado C-PACE administrator with information necessary to develop a Draft Project Finance Report for the project. Finally, the contractor reviews the report with the property owner and makes any necessary changes.

3. Mortgage Holder Consent

Colorado C-PACE reviews the Project Finance report with the property's mortgage lender and requests lender consent.

4. Final Application

Projects that have received approval to move forward will submit a final project application that include financial assumptions,

5. Technical Underwriting

NEID will review each project to make sure that it is technically sound (e.g. review energy model, review feasibility study).

6. Financing

After a project has received lender consent, the property owner works with a capital provider to prepare a financing agreement. Colorado C-PACE can work with capital providers during the closing process. Financial underwriting requirements, interest rates, and fees will be set by the capital provider funding the project.

Property owners will enter into an assessment contract with the county's treasurer and tax collector, the owner, and the capital provider. Once this contract has been executed, funds can be disbursed to the project. The property owner must complete the project in the agreed timeline and use the qualified contractor approved by the program.

Colorado C-PACE also works with the municipality to record mortgage lender consent. The county government is responsible for recording the PACE Assessment in the County Land Records.

7. Measurement and Verification

Colorado C-PACE requires that the contractor provide a post-construction commissioning report once a project has been completed.