

*Policy Brief*

Property Assessed Clean Energy (PACE) Financing:  
Update on Commercial Programs



March 23, 2011

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## Executive Summary

Since 2008, 24 states and the District of Columbia have authorized Property Assessed Clean Energy (PACE) under state law, and state and local governments initially allocated over \$150 million in federal grant funds to help launch programs.<sup>1</sup> However, actions taken by the Federal Housing Finance Agency (FHFA), the Office of the Comptroller of the Currency (OCC) and other financial regulators in mid-2010 froze most residential PACE programs. Commercial PACE programs were not directly affected by these actions and are moving forward in a number of cities around the country.<sup>2</sup>

This policy brief provides an overview of all currently operating commercial PACE programs, including project data, the various financing mechanisms that are being piloted, and common challenges across programs. The policy brief also includes a summary of programs in the mid- to late developmental stage.

### Key findings:

- 71 projects have been approved and financed in the four active commercial PACE programs, representing about \$9.7 million in energy efficiency and renewable energy project investments (see Table ES-1).

Approved Projects	Total Approved Funding	Average Project Size	Range of Project Sizes
71	\$9.69M	\$138K	\$2K –\$2.3M

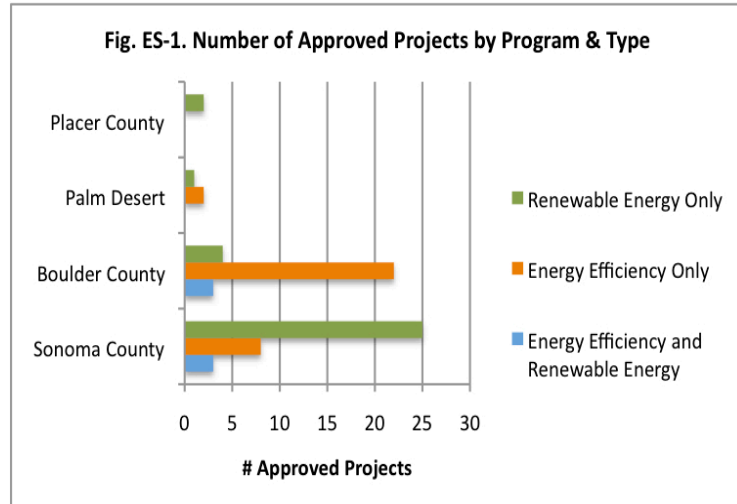
- In all active and planned programs, the existing mortgage holder must provide written consent or formal acknowledgement for the property to participate in the program. Mortgage lenders from local, regional and national banks have provided their approval for these projects.
- While all existing programs are utilizing government capital or credit to provide financing for PACE projects, the programs scheduled to launch in 2011 will rely primarily on private capital complemented by federal grant money for credit enhancement purposes.

<sup>1</sup> These PACE programs were included in the initial plans and budgets filed by state energy offices and local governments under the State Energy Program (SEP) and Energy Efficiency Community Block Grant (EECBG) programs to utilize American Recovery and Reinvestment Act funds; most PACE program funds have since been redirected to other initiatives.

<sup>2</sup> Some regulatory risks remain for commercial PACE. For more information on regulatory action on residential and commercial PACE, please visit Lawrence Berkeley National Lab's "PACE Status Update":

<http://eetd.lbl.gov/ea/ems/reports/ee-policybrief081110.pdf>

- The improvements financed have varied by program (see Fig. ES-1). For example, the majority of financings approved by Sonoma County (CA) will or have funded solar PV projects, while Boulder County's projects are predominately energy efficiency. This may be due to climate, local incentive structures, or other factors.



- New commercial PACE programs are launching around the country and more significant project volumes are expected by the end of 2011 (see Table ES-2). An overview of the programs that have recently launched or are planning to launch in 2011 appears below.

Operational Programs	4
Programs in Design	9
Preliminary Planning	4
<b>Total</b>	<b>17</b>

## Commercial PACE Financing

Property Assessed Clean Energy (PACE) is an innovative municipal finance mechanism that allows property owners to finance energy efficiency and renewable energy projects – such as HVAC system upgrades, cool roofs, and solar photovoltaic systems – as a property tax assessment. The debt is typically secured by a senior lien on the property, which helps programs attract private capital at competitive rates and terms.<sup>3</sup>

Historically, much of the attention on PACE focused on its applicability to residential properties. In the wake of the actions of the FHFA, OCC and other financial regulators in the summer of 2010, more attention has shifted to the commercial building market.

This report provides an overview of all currently operating commercial PACE programs and a summary of programs currently in development.

An overview of commercial PACE, including financial structures, regulatory issues, American Recovery and Reinvestment Act (ARRA) compliance, and accounting, is provided in Appendix A.

## PACE Programs

There are currently four commercial PACE programs in operation and nine in design, many of which are expected to launch in 2011.<sup>4</sup> To date, active programs have approved \$9.69 million of financing for 71 projects (see Table 1).

Approved Projects	Total Approved Funding	Average Project Size	Range of Project Sizes
71	\$9.69M	\$138K	\$2K – \$2.3M

### ***Operational Programs***

The four operational PACE programs vary significantly in design, funding source, and size. These differences reflect the resources available to the government sponsors, the building stock, and the incorporation of best practices over time. All of the operational programs are supported by public funds (e.g., for credit enhancement purposes or direct investment) and the rates and terms offered by these programs do not necessarily reflect market rates for private capital. Program data through January 2011 is summarized in Table 2.

<sup>3</sup> For more information regarding PACE please see “How to Guide on PACE Financing” (Fuller, Kunkel, Kammen 2009): <http://rael.berkeley.edu/financing/resources>

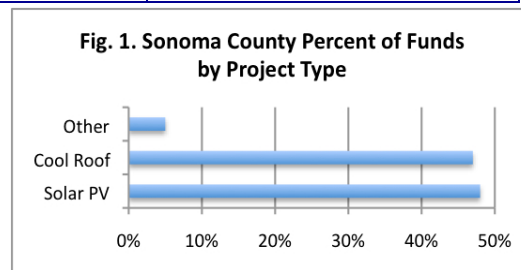
<sup>4</sup> In addition to those in formal planning stages, Cleveland, Ohio, Cutler Bay, Florida, New Orleans, Louisiana, and Sacramento, California have begun preliminary planning to launch PACE commercial programs.

Table 2. Commercial PACE Programs in Operation Have Financed 71 Projects						
Program	Approved Projects	Total Approved Funding	Average Project Size	Interest Rate	Term (in years)	Source of Funding
Sonoma County, CA	37	\$7.27M	\$196K	7%	Up to 20	County Treasury
Boulder County, CO	29	\$1.52M	\$51K	1.04% or 2.29% <sup>5</sup>	5 or 10	Moral Obligation Bond Issuance w/ QECCB
Placer County, CA	2	\$319K	\$160K	7.25%	Up to 20	County Treasury
Palm Desert, CA	3	\$575K	\$192K	7%	Up to 20	City Backed Funds

**Sonoma County Energy Independence Program (SCEIP):** Launched in spring 2009, SCEIP is open to both residential and commercial customers (see Table 3). The County is able to offer on-demand financing to property owners since the program is funded out of the County Treasury. The County is exploring the use of a takeout strategy so that it can replenish the funds it has already extended.

While the program provides financing for a wide variety of renewable energy, energy efficiency and water efficiency projects, 95% of funds for commercial building projects have gone to fund solar PV (48%) and cool roofs (47%) (see Figure 1). The 25 solar PV projects will total over half a megawatt and range in size from under 10kW to over 100kW. Six of the projects include cool roofs ranging in cost from \$7,000-\$2.3 million. The remaining commercial building projects are solar

Table 3. Sonoma County Program Statistics	
<b>Range of Project Size</b>	Min \$9.6K; Max \$2.3M
<b>Project Mix</b>	25 Renewable Energy Only 7 Energy Efficiency Only 3 Energy Efficiency & Renewable Energy 1 Energy Efficiency & Water 1 Unspecified
<b>Finance Structure</b>	Warehoused
<b>Source of Funds</b>	County Treasury Funds
<b>Lender Consent and/or Acknowledgment Required</b>	Yes
<b>Acceleration</b>	No



<sup>5</sup> Interest rates are 1.04% or 2.29% for projects with a five-year or ten-year term, respectively. In addition to the interest rate, capital expenses equal to 8.09% (five-year term) and 4.27% (ten-year term) of the project cost are added to the financed amount to cover administrative and other expenses incurred by the County over the lives of the assessments.

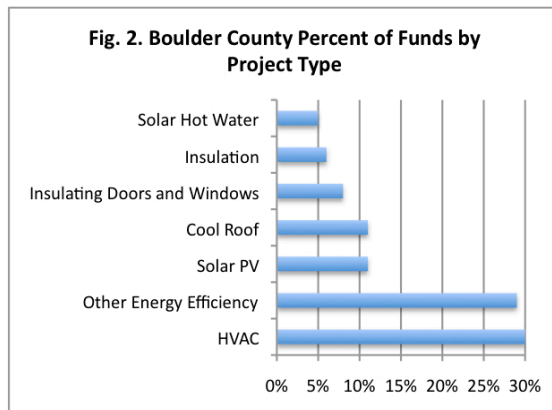
thermal (2%), HVAC (1%), and other energy and water efficiency measures such as lighting, windows, and insulation.

**Boulder County ClimateSmart Loan Program:** Boulder, CO pioneered the pooled bond method and has successfully completed two residential and one commercial bond issuances (see Table 4).<sup>6</sup> These bonds are backed by a moral obligation from the County. This moral obligation has enabled the County to issue debt at attractive rates and to pass on these low interest rates to participants. Boulder further reduced the interest rate for the commercial program by using a portion of its Qualified Energy Conservation Bond (QECB) allocation.<sup>7</sup>

Boulder collected data on the value of participating properties, allowing program administrators to track the lien-to-value ratio (LTV) of the assessments. 90% of the assessments have a LTV that is less than 1:10. Only one project has an LTV significantly greater than the 1:10 threshold and this property does not have a mortgage. This data suggests that the 1:10 LTV requirement may be sufficient to maintain demand for PACE financing, however Boulder County property values are high and the financing amounts are low relative to other programs.

Boulder's PACE program has financed a wide range of building types and measures (see Figure 2). The diversity of building types in the pool suggests that PACE financing may have wide applicability despite split incentive challenges in multi-family and other leased buildings. The majority of measures were energy efficiency improvements. By cost, 30% of financing went to HVAC units, 11% to solar PV, 11% to cool

Table 4. Boulder County Program Statistics	
<b>Range of Actual Project Size</b>	Min \$2K; Max \$200K
<b>Project Mix</b>	4 Renewable Energy Only 22 Energy Efficiency Only 3 Energy Efficiency and Renewable Energy
<b>Finance Structure</b>	Pooled Bond
<b>Source of Funds</b>	Public Issuance of Qualified Energy Conservation Bonds with a Moral Obligation
<b>Lender Consent and/or Acknowledgment Required</b>	Yes
<b>Lender Consenting</b>	7 National Bank 5 Regional Bank 5 Community Bank 3 Other Lending Institution 8 Properties have no mortgage 1 Unspecified
<b>Average Ratio of Financed Amount to Actual Property Value</b>	4.42%
<b>Acceleration</b>	Yes
<b>Building Type</b>	9 Office 6 Multi-family 5 Food Service 2 Small Manufacturing 2 Retail 5 Other



<sup>6</sup> For more information on the pooled bond PACE model, see Appendix A.

<sup>7</sup> For more information on QECBs, see Appendix A.

roofs, 8% to insulating doors and windows, 6% to insulation, 5% to solar hot water and the remaining 29% to other efficiency measures such as lighting, retro-commissioning, and energy management systems.

**Palm Desert Energy Independence Program:** Palm Desert, CA launched the first PACE program in 2008 and officially reopened its application process in August of 2010 after a short suspension to review FHFA guidance. The hot climate makes solar, HVAC, and other efficiency measures especially cost effective for many building owners. The program has primarily funded renewable energy and energy efficiency improvements to residential buildings but it is also open to commercial properties

<b>Range of Project Size</b>	Min \$23K; Max \$522K
<b>Project Mix</b>	1 Renewable Energy Only 2 Energy Efficiency Only
<b>Finance Structure</b>	Warehoused
<b>Source of Funds</b>	Municipal Funds and Redevelopment Agency Bonds
<b>Lender Consent and/or Acknowledgment Required</b>	Only for projects over \$30K
<b>Acceleration</b>	No
<b>Building Type</b>	2 Retail 1 Office

and has funded two HVAC replacements and one solar PV system in that market (Table 5).

**mPOWER Placer County:** Placer County, CA began to focus on providing PACE financing to commercial building owners in 2010. The program provides funding for both energy efficiency and renewable energy improvements. Both lender acknowledgment and a 1:10 lien-to-value ratio are required to participate in the program.

<b>Range of Project Size</b>	Min \$121K; Max \$199K
<b>Project Mix</b>	2 Renewable Energy Only
<b>Finance Structure</b>	Warehoused
<b>Source of Funds</b>	County Treasury Investment
<b>Lender Consent and/or Acknowledgment Required</b>	Yes
<b>Acceleration</b>	No
<b>Building Type</b>	1 Plant Nursery 1 Motel

Two commercial projects have been funded and the county is processing twelve other applications (Table 6). Many of these applicants are manufacturing facilities. About two thirds of the proposed projects are solar PV and the remaining third are energy efficiency projects. The program covers two climate zones and operates in collaboration with two municipal utilities and one investor owned utility.

Currently, \$33 million is committed for financing through the County Treasury with an additional \$22 million available. At a future date, the county plans to sell the PACE bonds purchased and held in the County Treasury to replenish program funds for ongoing financing.

***Programs In Development***

The majority of PACE programs in development were specifically designed to serve commercial markets, rather than being adapted from existing residential programs. These programs will generally use private capital to fund improvements but most will still rely upon credit enhancements like debt service reserves to attract private capital and to lower rates for potential participants.

**City of Ann Arbor, MI:** Michigan recently passed PACE enabling legislation that would allow its municipalities to launch commercial PACE programs. The City of Ann Arbor is planning to launch a PACE commercial pilot later this year and may allocate a portion of its ARRA funds to capitalize a debt service reserve fund.

**California PACE Program:** The California PACE Program is a privately-funded, state-wide program. The program is administered through the Pacific Housing Finance Agency (PHFA), a CA State Joint Powers Authority (JPA). Any city or county in the State of California can join the program, which will use its existing bonding authority (currently \$95 million and up to \$2 billion) to raise capital for projects that have been aggregated across multiple jurisdictions and meet certain eligibility requirements (e.g., lien holder consent obtained). Using this aggregation approach, the program aims to secure greater access to capital and lower transaction costs for local PACE programs and the projects that they fund. As of March 2011, eight cities have obtained the necessary approvals to join the program including Tulare, Fresno, Palm Springs, Farmerville, Woodlake, Adelanto, Exeter and Calipatria. The California PACE Program has received over \$4 million in funding applications and expects to aggregate energy retrofit applications already received for an initial bond offering in second quarter 2011.

**City of Los Angeles, CA:** The Community Redevelopment Agency of the City of Los Angeles (CRA/LA) is currently developing the Energy Upgrade Los Angeles Commercial Building Performance Initiative to catalyze holistic energy and water performance upgrades in Los Angeles' existing non-residential commercial buildings. The primary goal of the program is to enable PACE financing of single building projects under the "owner-arranged" model,<sup>8</sup> in which owners negotiate and obtain financing directly from capital providers. The program will also accommodate alternative approaches to financing projects in the event that the building owner is unable to secure mortgage holder consent to a PACE assessment. The Initiative will use ARRA monies to fund no-cost energy audits for property owners and to provide appropriate levels of credit enhancement for the program's initial projects. Program launch is slated for the second quarter of 2011.

**Northeast Ohio:** The Northeast Ohio Advanced Energy District (AED) is Ohio's first energy special improvement district (SID), a not-for-profit entity, incorporated in December 2010 by the City of Cleveland and 14 inner ring suburban municipalities of the First Suburbs Development Council. The Economic Development Directors of each municipality serve on the AED Board and two staff are currently working on program design with an expected program launch date of Summer 2011. The AED enables commercial and industrial property owners in the 15 AED member communities to install and finance energy related projects, including solar electric, solar thermal, wind, geothermal, biomass and energy efficiency related technologies.

**City and County of San Francisco, CA:** The City and County of San Francisco is using ARRA funds to develop a commercial PACE pilot program as part of their GreenFinanceSF program. San Francisco intends to use the "owner-arranged" model, at least initially. The portfolio of projects will be supported by an ARRA-funded debt service reserve.

**Santa Fe County, NM:** The County of Santa Fe created its PACE district in October 2009 and is designing a commercial PACE pilot program. Due to the nature of New Mexico's PACE

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<sup>8</sup> For more information on the owner-arranged PACE model, see Appendix A.

enabling legislation, the program will restrict financing to renewable energy measures. The program will likely use the pooled bond approach and plans to attract private capital by using ARRA funds to capitalize a debt service reserve.

**Washington, D.C.:** The Washington, D.C. Mayor's Office of Planning and Economic Development is finalizing a contract with its PACE program administration partner. The contract should be in place soon with program launch slated for mid-2011. Commercial and multifamily properties will be eligible to participate, making PACE financing available to approximately 75% of the buildings in Washington, D.C. The District plans to use revenue bonds to fund a pilot of \$25-\$30 million of energy improvements—it has \$250 million of total bonding authority. Fourteen major property owners own the majority of buildings in downtown D.C., and the program plans to do aggressive outreach to these owners in order to promote energy improvements on a diverse portfolio of buildings.

**Western Riverside Council of Governments (California):** The Western Riverside Council of Governments (WRCOG), which consists of 17 cities, the County of Riverside and two water districts, is developing an energy efficiency and water conservation program that would allow commercial property owners to implement energy and water efficiency improvements using PACE assessments. The program will utilize specific credit underwriting guidelines including minimum property LTV and project debt service coverage ratios in determining loan eligibility. The program is expected to fund projects through the sale of bonds by WRCOG. WRCOG is simultaneously developing a separate program to fund large solar projects in commercial buildings. Initially, up to \$25 million will be made available for financing projects. The program plans to begin accepting solar project applications in May or June of 2011.

**Melbourne, Australia:** The City of Melbourne launched the 1200 Buildings Program in March 2010 with the aim of catalyzing the retrofit of at least 1,200 predominantly non-residential buildings in the municipality. The program is the first of its kind in Australia. The ultimate goal of the program is to save five gigalitres of potable water and reduce energy use in these buildings by 38%, mitigating 383 kilotons of greenhouse gas emissions. The program identified a lack of commercial funding as one of the key barriers to implementing environmental upgrades to existing buildings. The City of Melbourne aims to overcome this barrier by partnering with Australian financial institutions and entering into voluntary arrangements with property owners for the purpose of securing project financing. The financed amount for each project is declared against the property as an Environmental Upgrade Charge (EUC) and the City of Melbourne levies this charge annually. The 1200 Buildings Program is managed through a strategic partnership between the City of Melbourne and the Sustainable Melbourne Fund (SMF).

## Conclusion

Preliminary data from the four operational programs indicates that PACE financing has the potential to serve a variety of building types and is suitable for financing a range of energy efficiency and renewable energy improvements. This data also suggests that underwriting criteria like lender consent/acknowledgement and maximum lien-to-value (LTV) ratios may be sufficient to responsibly deliver PACE financing to commercial building owners.

Participating property owners have had success in obtaining consent/acknowledgement from mortgage holders including local, regional, and national lenders and approved financings have largely met a 1:10 LTV ratio.

This data is encouraging, but cannot be widely extrapolated since many of the programs launching in 2011 will utilize different financing structures, credit enhancements, and will serve substantively different markets. Both Los Angeles and San Francisco will pilot the owner-arranged financing model and will serve major urban markets. New programs will also test the ability of PACE to attract capital without the use of municipal funds or governmental backing.

## About the Authors of this Policy Brief

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**Renewable Funding:** Renewable Funding specializes in design, administration, technology, and financing solutions for clean energy retrofit programs. Since 2008, the firm has worked with over 200 communities to structure residential and commercial financing programs.

Renewable Funding is internationally regarded as an innovator in the clean energy financial marketplace. The firm has pioneered property assessed clean energy (PACE) models for residential and commercial properties, including leading the launch of the seminal BerkeleyFIRST program. The firm also works, in close partnership with leading financial institutions, to develop a secondary market for clean energy products. For more information, visit: [www.renewfund.com](http://www.renewfund.com)

**Clinton Climate Initiative:** The William J. Clinton Foundation launched the Clinton Climate Initiative (CCI) in 2006 to create and advance solutions to the core issues driving climate change. Working with governments and businesses around the world to tailor local solutions that are economically and environmentally sustainable, CCI focuses on three strategic program areas: reducing emissions in cities, catalyzing the large-scale supply of clean energy, and working to measure and value the carbon absorbed by forests. In each of these programs, CCI uses a holistic approach to address the major sources of greenhouse gas emissions and the people, policies, and practices that impact them. CCI is the delivery partner of the C40, an association of large cities around the world that have pledged to accelerate their efforts to reduce greenhouse gas emissions. CCI has extended the benefits of its cities programs to a number of additional public and private sector partners. CCI cities programs include energy efficiency building retrofits, outdoor lighting, waste management, low carbon transportation, urban developments and CO2 measurement and reporting. CCI is a non-profit organization that operates from an independent and unbiased perspective and has no financial interest in any project that might be developed as a result of its involvement. Its work is funded through charitable donations from individuals and private foundations. For more information, visit: <http://www.clintonfoundation.org/cci>

**Lawrence Berkeley National Lab:** Within the Electricity Market and Policy area, Lawrence Berkeley National Lab (LBNL) analyzes public interest policy issues and conducts research projects on key electricity market issues, including electric power system reliability, energy efficiency, demand response, renewable energy, distributed energy resources, and energy sector modeling. For more information, visit: <http://eetd.lbl.gov/EA/EMP/emp.html>

## Appendix A – Overview of Commercial PACE

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Property Assessed Clean Energy (PACE) financing programs allow state and local governments, where permitted by state law, to extend the use of land-secured financing districts to fund energy efficiency and renewable energy improvements on private property. PACE programs attach the obligation to repay the cost of improvements to the property, not to the individual borrower.

There are two major characteristics that make PACE unique in contrast to the traditional use of land-secured financing districts. First, property owner participation is 100% voluntary—only those property owners that choose to participate in the PACE program, or purchase a participating property, pay the costs of the additional assessment. Second, PACE financing can only be used to pay for prequalified energy efficiency and renewable energy improvements on participating properties.

### ***Commercial PACE Finance Structures<sup>9</sup>***

Three main financing structures have evolved to support commercial PACE programs:

1. **Warehoused:** The municipality uses a large line of credit (in the millions of dollars), or other credit facility, to fund qualified projects on an as-needed basis. When sufficient project volume is reached, the portfolio can be sold through a municipal revenue bond issuance or other capital markets transaction. The proceeds of the sale replenish the line of credit and facilitate a new funding cycle. As an alternative to private capital, local or state governments can choose to fund projects from their general funds and/or investment portfolios.
2. **Pooled Bond:** Property owner applications for PACE financing are approved during an aggregation period. When a sufficient pool of approved applications has been assembled, the local government sells a bond to fund all of the projects and permits property owners to proceed with their energy upgrades.
3. **Owner Arranged:** Property owners have the flexibility to independently secure financing for a defined project with a lender of their choice. Financing terms are negotiated independent of the municipality or state, and are predicated on 1) the senior lien that the PACE mechanism affords and 2) the underlying credit of the owner/building. This model is designed to avoid the timing delays associated with the pooled bond approach (i.e., waiting to aggregate projects and waiting to issue a bond in the market). This approach may be better suited for larger projects (e.g. greater than \$500K) and/or buildings with better credit.

### ***Background on Federal Regulatory Issues***

Most regulatory activity has focused on residential PACE programs as opposed to commercial PACE programs.

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<sup>9</sup> More information on the three financing methods is available in the Department of Energy's "Clean Energy Finance Guide for Residential and Commercial Building Improvements":  
[http://www1.eere.energy.gov/wip/solutioncenter/pdfs/revFinal\\_V3Ch13CommercialPACEDec9.pdf](http://www1.eere.energy.gov/wip/solutioncenter/pdfs/revFinal_V3Ch13CommercialPACEDec9.pdf)

The Federal Housing Finance Agency (FHFA) issued a statement on July 6, 2010, that PACE programs with senior lien position<sup>10</sup> “present significant safety and soundness concerns that must be addressed by Fannie Mae, Freddie Mac, and the Federal Home Loan Banks.” In particular, PACE liens were deemed to “run contrary to the Fannie Mae-Freddie Mac Uniform Security Instrument....” —i.e., the standard mortgage contract. This position has halted most residential PACE programs in the U.S.

The FHFA letter was specific to home mortgage lending. The Office of the Comptroller of the Currency (OCC), which regulates national banks, also issued PACE guidance in July 2010. This statement raised additional concerns by specifically mentioning commercial properties in its statement that “safety and soundness concerns” exist. However, the OCC did not indicate whether commercial PACE programs could go forward. A detailed discussion of this issue is included in a recent report by Lawrence Berkeley National Laboratory<sup>11</sup>. Efforts are underway to obtain further clarification from the OCC.

Generally speaking, commercial PACE programs with lender and owner consent and/or acknowledgement provisions—both the existing lender and property owner must give their written consent and/or acknowledgement for the PACE financing—provide robust lending safeguards. PACE programs may also institute more explicit credit underwriting requirements - such as maximum building loan-to-value ratio and maximum lien-to-value ratio - in an effort to protect existing lien holders and property owners from unnecessary debt-related risks.

### ***ARRA Uses and Requirements***

Many commercial PACE programs are using American Recovery and Reinvestment Act (ARRA) or other public funds to provide enhanced services and/or credit enhancement. The funds can provide a valuable tool to reduce program and financing costs, but ARRA funds come with significant reporting and other obligations.

There are several program design options that can use ARRA or other funds to reduce the interest rate of PACE financing by reducing risk to capital providers. The most common options are described below.

- **Debt Service Reserve Fund:** A debt service reserve fund (DSRF) equivalent to 5%-10% (or more) of the issuance is commonly created to cover bond debt service (i.e., payments made to bond investors) in the event of late payments or defaults by property owners.
- **Subordinate Capital:** A common capital markets credit enhancement structure is a “senior-subordinate” structure. In such an approach, the ARRA or other public funds would be combined with private capital and provided for project financing rather than held in reserve. In the event of a default, the losses are first borne by the publicly-funded, subordinate piece of the investment. The private investor’s senior interest remains protected until losses exceed the amount of subordinate capital in the financing.

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<sup>10</sup> *Senior lien position* refers to a debt having priority over all other debt on a property in the case of foreclosure (i.e., it gets paid off first before other outstanding debt, including mortgages). Most PACE programs use a senior lien position for the PACE debt because the PACE assessments are part of the property taxes, and property taxes are already senior to other property debt. But there are some PACE programs that use a *subordinate* or *junior* position instead, which means the mortgage has priority over the PACE debt.

<sup>11</sup> <http://eetd.lbl.gov/ea/ems/reports/ee-policybrief081110.pdf>

- **Qualified Energy Conservation Bonds (QECBs)**<sup>12</sup>: State or local governments that have access to allocations of QECBs can use them to fund PACE programs at below market rates. QECBs are a type of qualified tax credit bond that can be used to fund energy saving projects in public and private buildings (subject to limitation). Tax credit bonds allow municipalities to borrow at lower effective interest rates because the federal government subsidizes their interest payments to investors through the use of a tax credit or cash-in-lieu of credit.
- **Obligation of Government Credit**: While not a use for ARRA funds, it is important to note that local or state governments can fully or partially guarantee repayment by placing a general or moral obligation on PACE financings. Under a general obligation, local or state governments pledge their full faith and credit to the bonds—effectively guaranteeing that if tax receipts fall short, they will make up the difference. With a moral obligation, the governmental body pledges to back the bond, but makes no legal commitment to do so.

The use of federal ARRA funds to support PACE programs can trigger labor and environmental laws.

- **Davis-Bacon and Prevailing Wage**: Many federally supported programs must comply with the Davis-Bacon Act, which requires the payment of a prevailing wage to contractors utilizing the program. The U.S. Department of Energy has stated that loan loss reserves do not automatically trigger Davis-Bacon as federal funds do not flow to contractors.<sup>13</sup> However, commercial PACE programs that use ARRA funds to directly fund the installation of projects are subject to the requirements of the Davis-Bacon act and must pay prevailing wages.<sup>14</sup>
- **National Environmental Policy Act (NEPA)**: ARRA funds used for credit enhancement of a financing program—including a debt service reserve fund, interest rate buy-down, or third-party loan insurance—are subject to federal requirements including the National Environmental Protection Act (NEPA).<sup>15</sup>

### ***Acceleration and Transferability***

PACE assessments are generally treated as any other tax obligation and are often transferred to the new owner upon sale of the property. Consequently, only delinquent payments of the assessments are due if the property is foreclosed upon, instead of the entirety of the assessment. This is referred to as a “non-acceleration” of payments.<sup>16</sup>

<sup>12</sup> More information available on QECBs at

<http://www1.eere.energy.gov/wip/solutioncenter/financialproducts/QECB.html>

<sup>13</sup> [http://www1.eere.energy.gov/eere\\_faqs/detail\\_search.aspx?IDQuestion=712&pid=10&spid=1](http://www1.eere.energy.gov/eere_faqs/detail_search.aspx?IDQuestion=712&pid=10&spid=1)

<sup>14</sup> [http://www1.eere.energy.gov/wip/davis-bacon\\_act.html](http://www1.eere.energy.gov/wip/davis-bacon_act.html)

<sup>15</sup> [http://www1.eere.energy.gov/wip/nepa\\_guidance.html](http://www1.eere.energy.gov/wip/nepa_guidance.html)

<sup>16</sup> More information about the non-acceleration of PACE assessments can be found in the May 2010 LBL Policy Brief by Zimring and Fuller “Accelerating the Payment of PACE Assessments”

[http://eetd.lbl.gov/ea/ems/reports/ee-policybrief\\_050410.pdf](http://eetd.lbl.gov/ea/ems/reports/ee-policybrief_050410.pdf)

***Pass Through***

PACE assessments may be eligible for expense “pass-through” to tenants, depending on lease structure and local law. In the case of net lease agreements, the pass-through of assessments would allow owners and tenants to more equitably share in the costs and benefits (e.g. lower utility bills) of the energy project. However, no accounting firm has categorically determined the proper accounting treatment of PACE assessments, so owners must rely on their own accountants’ interpretation.