OLR RESEARCH REPORT

March 13, 2012 2012-R-0133

# PROPERTY ASSESSED CLEAN ENERGY PROGRAMS

By: Kevin E. McCarthy, Principal Analyst

You asked for information on property assessed clean energy (PACE) programs. You wanted know the status of, demand for, and success of PACE programs in other states. Specifically, you wanted to learn how many properties have taken advantage of PACE programs, the value of loans and improvements, estimated energy cost savings, and whether savings are expected to exceed costs over the anticipated life of the improvements.

Much of the information in this report regarding commercial PACE programs is taken from a 2011 study prepared by the U.S. Department of Energy's Lawrence Berkeley Laboratory (LBL), which is available at http://eetd.lbl.gov/ea/ems/reports/pace-pb-032311.pdf.

## SUMMARY

At least 24 states, including Connecticut, have adopted legislation authorizing PACE programs. These programs allow municipalities and counties to provide loans for energy efficiency and renewable energy improvements; in California water conservation improvements are also eligible. The loans are backed by an assessment on the improved property which is enforced by a lien. In most states, although not Connecticut, the lien has priority over existing mortgages.

As discussed in OLR report 2012-R-0027, the Federal Housing Finance Agency (FHFA) raised concerns about PACE programs, most notably regarding the priority of PACE liens over existing mortgages on participating properties. It has taken steps that have largely stopped the implementation of residential PACE programs, although its actions are the subject of litigation.

Relatively few projects were financed before the FHFA actions, and there is limited data available on the programs. We present information on two active programs that primarily serve residential property owners, in Babylon, New York and Sonoma County, California (Sonoma also has a commercial program). In Babylon, there have been 652 loans to date with an average value of $9,802 (a total of $6.4 million). Sonoma County has financed over $50 million in projects, representing 1,600 residential properties, 45 non-residential properties, and 2,500 individual improvements.

In the wake of FHFA's action, several jurisdictions developed PACE programs for commercial properties. As of January 2011 (the latest available comprehensive data), 71 projects have been approved and financed in commercial PACE programs in Placer and Sonoma counties, California, the city of Palm Desert, California, and Boulder County, Colorado. In total, the projects represent about $9.7 million in energy efficiency and renewable energy project investments. The programs vary in the types of improvements they have financed. For example, the Sonoma County has primarily funded solar photovoltaic (PV) projects, while Boulder County has focused on energy efficiency projects. Among the four programs, the project loans range in size from $2,000 to $2.3 million, with an average of $138,000. Commercial PACE programs have recently begun in Los Angeles County and San Francisco and programs are in development in Michigan, Ohio, and Vermont. OLR report 2012-R-0027 describes the enabling legislation in Michigan and Vermont.

We found very little data on energy costs savings and the extent to which these savings exceed the costs of the loans. Babylon reports that, on average, its loans have produced $1,149 per year in energy savings and have an 8.7 year payback period. The largest PACE program, in Sonoma County, did not collect baseline energy consumption data until recently and therefore it cannot determine savings and payback periods for existing loans.

## BACKGROUND

The first on-going PACE programs were implemented in 2008 in Sonoma County and the city of Palm Desert in California and Babylon, New York. These programs were based on a pilot developed in Berkeley, California, which is described OLR report 2009-R-0031. Since then, at least 24 states, including Connecticut, have adopted legislation allowing municipalities or counties to adopt PACE programs. OLR report 2009-R-0440 provides information about the enabling legislation in Colorado, Maryland, New Mexico, North Carolina, Oregon, and Vermont.

Under PACE laws, a municipality or county typically establishes a district where local residents or businesses can participate in a loan program that finances energy efficiency or renewable energy improvement to their property (in California, the loans can also pay for water conservation projects). The municipality or county issues bonds to fund the program that are backed by an assessment on the participating properties. In most cases, the assessments are backed by a lien that takes priority over existing and future encumbrances, including existing mortgages. In Connecticut, the lien does not take priority over existing mortgages.

As discussed in OLR report 2012-R-0027, FHFA has jurisdiction over the residential secondary mortgage market, where mortgages are packaged into securities and are bought and sold by investors. It regulates the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), which dominate this market.

FHFA has raised three concerns regarding PACE programs. First, it believes that the priority liens established by PACE programs may alter valuations for mortgage-backed securities and pose significant risk to lenders and other entities in the secondary market. Second, FHFA believes that PACE loans lack adequate consumer protections. Third, it believes that the programs lack robust underwriting standards to protect homeowners and have inadequate energy retrofit standards.

In August 2010, Fannie Mae and Freddie Mac announced that they would not purchase mortgages originated on or after July 6, 2010 that were secured by properties encumbered by PACE obligations. FHFA subsequently directed that Fannie Mae and Freddie Mac continue to refrain from purchasing mortgage loans secured by properties with outstanding first-lien PACE obligations. In effect, FHFA's actions precluded mortgages with PACE liens from being sold on the secondary market and largely stopped the implementation of PACE programs with regard to residential properties in Connecticut and elsewhere.

## RESIDENTIAL PACE PROGRAMS

FHFA took its actions when PACE programs were in their early stages and most programs were subsequently suspended with regard to residential properties. Some of these programs had been quite active. For example, Boulder County, Colorado had financed 598 residential projects at a cost of over $9 million before suspending this component of its program. Babylon, New York and Sonoma County, which together with other parties have sued FHFA, have continued their residential programs.

### *Babylon, New York*

Babylon began its PACE program in 2008, as part of the Long Island Green Homes program. Babylon operates a waste-to-energy facility and state law requires it to maintain a reserve fund to pay for the necessary periodic re-lining of the ash pit operated in conjunction with this facility. The reserve fund was receiving negligible interest and the town decided to use the reserve to fund its energy efficiency program.

The town provides for energy saving improvements up to $12,000 per home and the homeowner pays for the improvements through a monthly benefit assessment fee. The amount of the monthly benefit assessment fee is structured to be less than the monthly savings on a resident's energy bills resulting from the energy-efficient improvements. The town charges a 3% administrative fee that is built into the monthly payments residents will make to pay for the improvements. All approved projects must have an estimated savings-to-investment ratio of 1.3 or higher and a payback period of 10 years or less.

Babylon has issued 652 loans as of March 1, 2012, with another 665 in progress. The average cost of the loans issued so far has been $9,807, with the bulk of the costs for attic insulation and air sealing ($3,550); heating, ventilation, and air conditioning (HVAC) systems ($2,402); and basement insulation ($1,090). On average, the loans have produced $1,149 per year in energy savings and have an 8.7 year payback period. Over the life of the loans, they are projected to have a 1.79 savings to investment ratio. There have been no defaults of the loans to date, although 32 have experienced delinquencies.

### *Sonoma County, California*

In July 2008, the California legislature authorized municipalities to establish voluntary PACE programs to fund conservation and renewable energy projects proposed by property owners. On March 25, 2009, the Sonoma County Board of Supervisors created the Sonoma County Energy Independence Program (SCEIP). Since then, SCEIP has financed over $50 million in projects for 2,500 individual improvements to 1,600 residential properties and 45 non-residential properties.

The projects are financed by loans backed on an assessment on the property, which is paid back through property taxes over 10 or 20 years with a simple interest rate of 7%. Financing is available to both residential and commercial applicants with a minimum assessment amount of $2,500. The amount available for financing is based on the value of the property, and the assessment runs with the property.

In March 2011, SCEIP was awarded a $3 million grant from the California Energy Commission, including $800,000 to provide discounts for energy audits performed in connection with the program and $550,000 to provide technical support and sample documents to develop a 'startup kit" for other jurisdictions interested in implementing residential PACE programs. Sonoma County will also engage in outreach specifically targeted to other local governments that will provide them with information on PACE program replication. The grant ends on March 31, 2012 and a full report will follow on each of the funded programs. Further information on the program is available at http://drivecms.com/uploads/sonomacountyenergy.org/SCEIP_Annual_Report_2011.pdf.

## COMMERCIAL PACE PROGRAMS

### *Older Programs*

The LBL study covers four commercial PACE programs that were active as of January 2011, in Placer and Sonoma Counties, California, the city of Palm Desert, California; and Boulder County, Colorado. All of the programs are supported by public funds for credit enhancement or direct investments. Credit enhancement provides reserves or other means of reducing the risk of a loan, thereby reducing the interest rate on the loan.

As of January 2011, these programs had approved a total of 71 projects with a total of $9.7 million in financing. The average loan amount was $138,000, with loans ranging from $2,500 to $2.3 million. Table 1 provides further information on these four programs.

**Table 1: Commercial PACE Programs**

| | *Loans* | *Total Funding* | *Average Loan* | *Interest Rate (%)* | *Term (years)* | *Funding Source* |
|---|---|---|---|---|---|---|
| **Sonoma County** | 37 | $7.3 million | $126,000 | 7 | Up to 20 | county |
| **Placer County** | 2 | $319,000 | $160,000 | 7.25 | Up to 20 | county |
| **Palm Desert** | 3 | $575,000 | $192,000 | 7 | Up to 20 | city |
| **Boulder County** | 29 | $1.5 million | $51,000 | 1.04 or 2.29 | 5 or 10 | county moral obligation bonds |

Sonoma County's program is open to commercial and industrial property and residential developments with more than four units. The lender holding a mortgage on the property must give its consent for the owner to participate in the program. All of the measures that are eligible under the residential program, such as efficient heating, ventilation, and air conditioning equipment are also eligible under the commercial program. In addition, the commercial program covers such things as energy management systems, efficient motors, and geothermal heat pumps. Further information on Sonoma County's commercial program is available at http://www.sonomacountyenergy.org/lower.php?url=commercial-owner.

Boulder's program was funded by a 2008 ballot measure that authorized the county to issue up to $40 million in bonds. Of this amount, $14 million was in tax-exempt bonds intended for low-income housing projects. However, due to actions imposed by federal mortgage agencies, the county suspended residential financing indefinitely. As it was not directly affected by these actions, a $12 million commercial program moved forward. Boulder further reduced the interest rate for its program by using part of its federally-authorized qualified energy conservation bond allocation. Further information about these bonds, as well as the related clean and renewable energy bonds, is available at http://www1.eere.energy.gov/wip/pdfs/qecb_creb_primer.pdf.

The improvements financed have varied by program. Most of the financings approved by Sonoma County will or have funded solar photovoltaic projects, while most of Boulder County's projects are energy efficiency. In Boulder, loans have averaged approximately 10% of the property value; Placer County caps the loan-value ratio at this level.

***New Programs***

***Los Angeles.*** The Los Angeles County PACE Program began on October 12, 2011. The program can be used to fund up to 100% of the installed cost of many building performance upgrades.

The program is open to non-residential income-producing properties, including those owned by non-profit organizations. The property must (1) be within the boundaries of a city that has adopted a resolution to join the countywide PACE district, (2) not have any notices of default or foreclosure for the past five years, (3) not be subject to any involuntary liens or judgments, and (4) not have been delinquent on property taxes for the past three years. The property owner must be current on any existing mortgages and the mortgage holders must explicitly consent to the PACE assessment.

The program does not specify eligible measures. Instead, projects will be evaluated on a case-by-case basis for compliance with the state law enabling such programs. So long as the measure is affixed to the property and can be reasonably proven to save energy or water, or generate clean power, it will be deemed eligible for PACE. Under orders adopted by the California Energy Commission, projects must achieve a 10% energy efficiency improvement before on-site power generation can be funded through PACE. The scope of work and projected energy efficiency improvement must be documented by an energy audit carried out by a qualified engineering firm.

Projects located in the city of Los Angeles that are served by the city's Division of Water and Power may also be eligible for credit enhancements. The city's Community Redevelopment Agency has budgeted $2.5 million in grant funds to be used as a debt service reserve fund (DSRF) backing PACE bond financings for eligible projects. The fund will be available to meet bond debt service payments in event the owner fails to pay its regular principal and interest assessment payments.

When the owner becomes current on payments, funds can be returned to the fund. The investor providing the financing benefits from the credit enhancement effect and the owner benefits from lower financing costs and avoiding the need to raise reserve funds from other sources The fund can also be leveraged to support a portfolio of financings which a given Investor makes under the PACE initiative.

This funding will be allocated to eligible projects case-by-case as the PACE financings are developed. The funding will typically equal 10% of total bond proceeds. As the project is completed and the owner demonstrates payment performance, the amount of agency funds contributions to the DSRF may be diminished over time. Further information about the program is available at https://commercial-pace.energyupgradeca.org/county/los_angeles/commercial_about.

### *San Francisco*

In October 2011, San Francisco launched the GreenFinanceSF-Commercial Program to help businesses green their buildings, cut down on carbon emissions, save energy, and create jobs. The program is open to commercial and non-profit properties and residential properties with five or more units. The program provides up to 100% of the cost of energy efficiency, renewable energy, and water conservation improvements.

To participate in the program, the property owner may not (1) be in default or (2) have a history of default on the mortgage or non-payment of property taxes, (3) have filed for bankruptcy recently, (4) have any significant pending legal action, or (5) have any involuntary liens or judgments. The combined debt (including new project financing) on the property cannot exceed the property's current value. The property value is determined by using the current assessed value or a recent appraisal by a city-approved appraiser. If the property has a mortgage or other private lien on it, the debt holders must consent in writing to the placement of a senior lien on the property.

Property owners who participate in the program must receive a program-approved energy audit to identify and prioritize building-specific energy saving opportunities and predict project savings. The cost of the audit can be included in the financing.

To ensure expected savings are realized, the owners must (1) participate in available and applicable utility rebate or customized incentive programs that offer inspections or other mechanisms to verify that the projected savings are achieved or (2) submit to independent project review and site inspections at additional cost. Participating property owners may be required to enroll in free or low-cost energy usage tracking services to help track how the installed improvements are performing over time. They are encouraged to do more detailed performance analysis on their own to further ensure continued energy and cost savings are achieved.

The program is using the "open market" model in which property owners negotiate project financing, including the interest rate and repayment term with qualified project lenders willing to fund their project. When a project is approved, the city sells a bond to the project lender, and the proceeds from the sale fund the project. A special tax is then levied on the property, which is collected through the property tax bill and paid back to the project lender. Other key features of the program are that it provides for the option of longer amortizations than typical commercial loans, and the payment obligation can run with the property, not the owner.

The financing repayment is secured by a senior lien on the property. The city is also providing an additional security option by establishing a DSRF that will help cover project lenders in case of late payments or default by the property owner. The city is using grant funds provided under the federal American Recovery and Reinvestment Act for the DSRF. Projects must apply to the city for consideration to take advantage of this limited credit enhancement option. Once the DSRF is fully allocated to approved projects, and other grant funds that cover program operational costs are exhausted, applicants will have to cover the operational costs through additional fees or add them to their total financed amount.

KM:dy