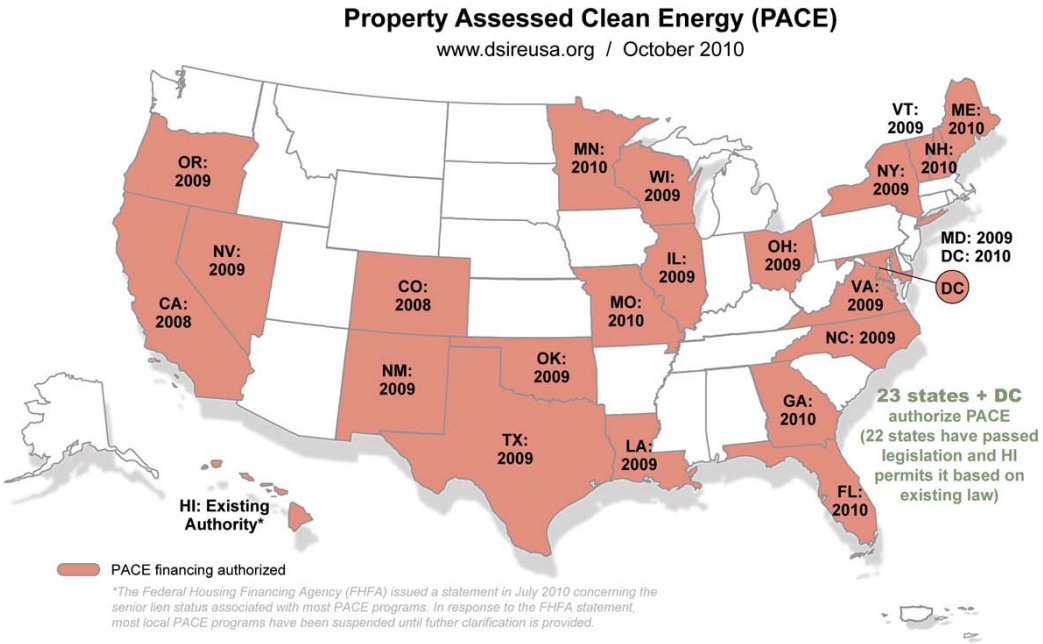
2.5

Property Assessed Clean Energy Financing

A new structure to finance **renewable energy** and energy efficiency investments is the **property assessed clean energy** (PACE) program model. A PACE program seeks to address both the up-front cost barrier to solar and the hesitancy of homeowners to make long-term investments in their homes, given that many people move every 5 to 7 years.

In a PACE program, the city or county finances the up-front costs of the energy investment, either directly or as an intermediary for private investors. The property owner repays the loan over an extended period (10 to 20 years) through a special property tax assessment. PACE programs are modeled after traditional land-secured financing, so in order for this type of financing to work, local jurisdictions must have authorization to create a special assessment district or another mechanism that allows energy retrofits to be financed through property tax bills.



Most states already authorize municipalities and counties to create special districts to finance "public goods" such as street beautification or sewer-system upgrades. In most states, the most straightforward method is to amend an existing special district authority to allow clean energy projects on private property. Some states have opted to create a new stand-alone law. Cities and counties in some states also have specific "charter" or "home rule" authority and can authorize

PACE programs via local ordinance. As of October 2010, 23 states plus the District of Columbia have enabling legislation that allows local governments to create clean energy financing districts. Hawaii also allows PACE based on existing law.

With enabling legislation in place, a clean energy financing district is created by a local government. Individual property owners then decide whether to opt in to the district to enable financing of energy improvements on their properties. Property taxes remain the same for those who decide not to participate in the program—this is a key element in the marketing of the program. Only energy improvements that are affixed to the property are eligible under PACE programs. If a participant in the clean energy financing district sells the property, the special property tax assessment typically remains with the property, although in some cases the transfer can be a negotiation point at sale.

Funding for a PACE program has taken a number of different forms in the handful of initiatives that have already been launched. Boulder County, Colorado, is using voter-approved bond financing; Berkeley, California, is working with a private investor; Palm Desert and Sonoma County, California, used **general funds** to start the program. It is likely that large-scale PACE programs will eventually be financed using private capital provided through the **municipal bond** markets.

The American Recovery and Reinvestment Act of 2009 (the Recovery Act) removed the federal government's "anti-double-dipping" rule, which was introduced in the Energy Policy Act of 2005. This rule created uncertainty about whether a PACE program financed by tax-exempt bonds prevented the property owner from also taking the **federal investment tax credit** (ITC). Property owners now are allowed to claim both the 30% federal ITC and take advantage of "subsidized energy financing" that can be an element of a PACE program.

In May 2010, financial regulators including the Federal Housing Finance Agency (FHFA), Federal Deposit Insurance Corporation (FDIC) and the Office of the Comptroller of the Currency (OCC) expressed concerns about pilot PACE financing programs. On May 5, 2010, Fannie Mae and Freddie Mac sent a letter stating that their Uniform Securities Instruments prohibit loans that have a senior lien priority to a mortgage. In response to these concerns, U.S. Department of Energy (DOE) and White House officials have met repeatedly with Fannie Mae, Freddie Mac, and the financial regulators as well as PACE stakeholders across the country. In addition, DOE issued updated guidance for pilot PACE financing programs on May 7, 2010 (see Additional References and Resources). As of August 2010, efforts were under way to address this issue through legislative action with the introduction of bills before Congress in support of PACE.

As a result of this regulatory uncertainty, most PACE programs in the country are on hold. That said, some local governments continue to offer PACE programs for residential projects (e.g., Sonoma County) and for commercial projects (e.g., Boulder County). Commercial PACE programs are not subject to the FHFA rulings. In addition, some communities are exploring second-lien structures as an alternative to priority-lien PACE programs.

BENEFITS

The PACE financing model offers a number of benefits to **solar energy** system owners, including a long-term, fixed-cost financing option; an assessment tied to the property (instead of the system owner's credit rating); a repayment obligation that can transfer with the sale of the property; and the potential to deduct the loan interest from federal taxable income as part of the local property tax deduction. The benefits of this financial model for local governments include meeting climate and energy goals with little to no liability or exposure to a municipality's general fund. These programs do have administrative costs, but those costs can be included in a bond issuance and repaid by program participants. The program can be structured to fully leverage private investment, so a municipality or county can implement a PACE program with almost no budget impact

Implementation Tips and Options

- Determine whether the local jurisdiction is authorized to create a special district within an existing state statute and whether an amendment to broaden the statute is necessary. As an alternative, a community might be able to bypass the special district process and pass an ordinance that enables citizens to add a line item to their property tax bill for energy efficiency and renewable energy loans, or tap other funds; for example, a solid waste fund to finance the program. Vote Solar's Web site provides sample documents of enabling legislation (see www.votesolar.org/PACE).
- Consider including an allowance for contracts for the production of clean energy at the property in enabling legislation so third-party financiers can qualify for PACE funding.
- Identify whether existing bonding authority is adequate to support a PACE program in the community. Other funding sources, including federal tax credit bonds like **qualified energy conservation bonds** (QECBs) and public–private partnerships might also be possible.
- Design a financing structure that yields enough revenue to cover the principal and interest payments to the investors/bondholders, the program administration costs, and a reserve fund to cover participant delinquencies. Be aware, though, that some homeowners will be able to finance their projects more cost effectively using other sources of credit, such as a home-equity loan.
- Assess the scope of work involved in the program and determine whether an internal or external organization is better suited to administer the program.
- Work with the program administrator to create a simple application process for property owners.
- Educate the solar industry about the program and engage industry in program marketing. Installers talk to potential program participants, so it's important to ensure that installers know all the program details.
- Include energy efficiency measures as eligible projects in addition to renewable energy projects, and prioritize property owners who have received **energy audits** or have otherwise made informed decisions about the most cost-effective improvements to their property.

- ☐ Understand the alternative financing arrangements—such as leasing or power purchase agreements (PPAs)—that are available to potential participants. Be sure to educate potential participants on all financing options.

Examples

Boulder County, Colorado: Establishing Boulder's ClimateSmart Loan Program

In November 2008, voters in Boulder County authorized the county to issue up to $40 million in bonds to offer special financing options for renewable energy and energy efficiency improvements to local residential property owners. This program differs from the Berkeley model in several ways. The repayment period is shorter—loans to homeowners are repaid over 15 years as a special assessment on the homeowner's property tax bill. Boulder County is the first local government to issue federally tax-exempt as well as taxable bonds to finance a PACE program; other jurisdictions have used taxable bonds only. Boulder County also decided to aggregate applicants and then issue a large bond based on demand instead of issuing individual "mini-bonds" for each project as Berkeley did. Applicants must attend a workshop to learn about the program requirements and to receive information on energy audits and the benefits of investing in energy efficiency measures before renewable energy measures. A commercial program is under way and bonds are anticipated to be sold in late 2010.

In March 2009, more than 1,700 people attended program workshops. Boulder County held its first application round for the ClimateSmart Loan Program in April 2009. In the first round of funding, 393 residential projects were financed at interest rates of 5.20% and 6.68%, respectively, for the income-eligible (tax-exempt) and open (taxable) bonds. In October 2009, an additional 219 residential projects were financed at 5.8% and 6.8%, respectively. PV is the most popular investment, with 229 installations financed via the ClimateSmart program with $3.6 million in grant funds as of September 2010. After a successful first year, Boulder launched its first round of commercial PACE funding in January 2010. For more information, visit www.bouldercounty.org/bocc/cslp.

Visit www.solaramericacommunities.energy.gov for more inspiring examples from communities across the United States.

Additional References and Resources

WEB SITES

U.S. Department of Energy, Weatherization and Intergovernmental Program's Status Update Page on Pilot PACE Financing Programs

www.eere.energy.gov/wip/pace.html

The Vote Solar Initiative

http://votesolar.org/PACE

Vote Solar works with state and local governments to pass enabling legislation and clear the way for PACE financing programs. This Web site features case studies, legal analyses, and model requests for proposals (RFPs) for program administrators.

PUBLICATIONS

Photovoltaics (PV) as an Eligible Measure in Residential PACE Programs: Benefits and Challenges

National Renewable Energy Laboratory, June 2010

This fact sheet can help policy makers to determine if residential PACE programs should include PV as an eligible measure.

Fact sheet: www.nrel.gov/docs/fy10osti/47845.pdf

Transferring PACE Assessments Upon Home Sale

Lawrence Berkeley National Laboratory, National Renewable Energy Laboratory, Solar America Cities, April 2010

This policy brief analyzes one of the advantages of PACE, which is the option to transfer the special assessment from one homeowner to the next when the home is sold. This analysis focuses on the potential for the outstanding lien to affect the sales negotiation process, rather than the legal nature of the lien transfer itself.

Policy brief: http://eetd.lbl.gov/ea/emp/reports/ee-policybrief_041210.pdf

Recovery through Retrofit

Middle Class Task Force, Council on Environmental Quality, Vice President of the United States; Executive Office of the President of the United States, October 2009

This report discusses the energy-saving and job-creation opportunities offered by a comprehensive and national energy efficiency retrofit program. PACE financing is cited as a primary mechanism to finance this initiative.

Report: www.whitehouse.gov/assets/documents/Recovery_Through_Retrofit_Final_Report.pdf

Guide to Energy Efficiency & Renewable Energy Financing Districts for Local Governments

Renewable and Appropriate Energy Laboratory (RAEL), University of California, Berkeley. September 2009

This comprehensive guide to PACE programs addresses topics such as financing, marketing, legal issues, and program administration. It also contains a number of helpful case studies.

Report: http://rael.berkeley.edu/sites/default/files/old-site-files/2009/FullerKunkelKammen-MunicipalEnergyFinancing2009.pdf

Renewable and Appropriate Energy Laboratory Financing Seminar Presentations

University of California, Berkeley, April 2009

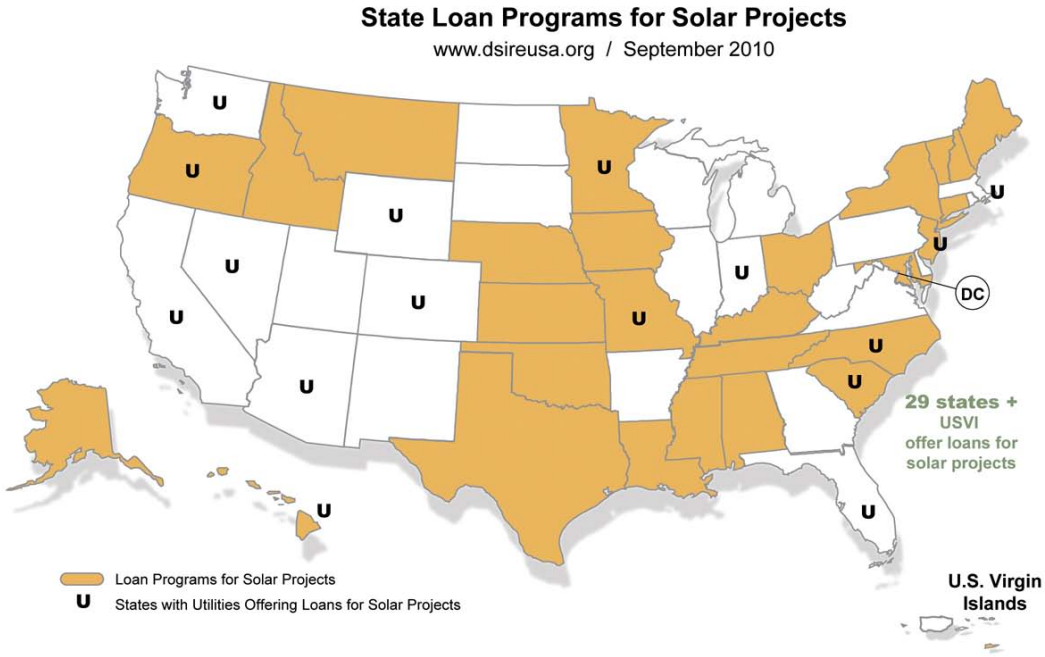
The RAEL Financing Seminar held in Berkeley, California, featured experts on municipal financing of clean energy. Program managers from Berkeley, Palm Desert, and Sonoma County, California, and Boulder, Colorado, discussed their experiences with implementing clean energy financing programs, including PACE financing programs.

Set of presentations: http://sites.google.com/site/raelfinancingseminar/Home/ppts

2.6

Low-Interest Loans

States, utilities, and local governments can use low-interest loans to encourage the adoption of **renewable energy** technologies. Agencies and utilities can administer a loan program directly or leverage funds by working with private lenders. Most state loan programs emphasize energy efficiency improvements that can include solar. As of September 2010, about one-third of the 30 existing renewable energy state loan programs under which solar installations are eligible target nonprofit and public buildings, including local government buildings and schools. Maximum loan amounts typically are about $1 million for commercial systems and $10,000 to $30,000 for residential systems, with varying interest rates and repayment terms from 3 to 20 years. States typically collaborate with private lenders in administering a program. Utility loan programs usually target residential solar installations. Repayment schedules vary and are usually determined on an individual project basis, but some utilities offer a repayment term of up to 10 years. Local governments offer a variety of loan programs. Most municipalities and counties collaborate with a local bank or community economic development organization to secure favorable terms or to structure interest rate **buy-downs**.



Note: For the most up-to-date information on states and municipalities with property and sales tax incentives for solar, visit www.dsireusa.org/summarymaps/index.cfm?ee=1&RE=1.