

KEEPING PACE?: THE CASE AGAINST PROPERTY ASSESSED CLEAN ENERGY FINANCING PROGRAMS

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Property Assessed Clean Energy (PACE) is a method of public financing for energy improvements through special assessments on local government property taxes. Interest in PACE exploded since its inception in 2008, with almost half the states rapidly enacting legislation enabling local governments to use their property collection power to finance residential energy investments. The growth in PACE has been suspended and existing programs have been put on hold in the face of opposition from the federal secondary mortgage market regulators. Governments and environmental advocates supporting PACE have initiated litigation against federal mortgage and banking regulators and are seeking passage of federal legislation to revive the programs. This Article argues that the theory underlying PACE is fundamentally flawed. PACE has been promoted as an alternative to traditional real estate financing that resolves the impediments to homeowners investing in alternative energy and energy efficiency. A careful analysis of these claims demonstrates that PACE actually operates similarly to most other types of real estate financing and that the efforts to reconstruct PACE programs through litigation or legislation are misplaced. Instead, PACE programs should be radically restructured or should be considered a creative yet failed experiment, offering valuable lessons for future residential energy investment programs.

INTRODUCTION

Property Assessed Clean Energy (PACE) is a creative new method of financing renewable energy systems and energy efficiency improvements for residential buildings. The essential element of a PACE program is public financing of energy improvements with repayment through special assessments on local government property taxes.¹ From 2008 through 2010,

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almost half the states enacted legislation enabling local governments to use their property collection power for this purpose.² Pioneering programs in California and Colorado are being studied by numerous cities and counties throughout the United States that are eager to participate in the critically needed transition to an environmentally sustainable economy.³

Harvard Business Review named PACE as one of ten “Breakthrough Ideas for 2010,”⁴ *Scientific American* listed it as one of twenty “World Changing Ideas,”⁵ and a White House report endorsed the concept.⁶ Until recently, PACE programs were on the verge of being launched throughout the country.⁷ The growth of PACE programs has been suspended, and existing programs have been put on hold, due to actions by federal mortgage market regulators requiring that property tax liens associated with PACE financing be subordinate to existing mortgage liens.⁸ Aggressive push-back from the

Minneapolis on the desirability of a PACE program. *See infra* note 9. One of those students, Nathan Shepherd, also made this paper possible by providing extraordinary research assistance. The author also thanks Claire Hill, Ann Burkhart, and Dan Schwarcz for their consistently excellent advice, and George Jackson for his research assistance.

1. BETHANY SPER & RON KOENIG, PROPERTY-ASSESSED CLEAN ENERGY (PACE) FINANCING OF RENEWABLES AND EFFICIENCY, NAT’L RENEWABLE ENERGY LAB 1 (July 2010), <http://www.nrel.gov/docs/fy10osti/47097.pdf>.

2. Jonathon C. Dernbach et al., *Energy Efficiency and Conservation, New Tools and Legal Opportunities*, 25 NATL. RES. AND ENV’T. 7, 11 (2011) (stating that at least twenty-three states have adopted PACE enabling legislation); *PACE Program (Property Assessed Clean Energy) Financing*, <http://solarfinancing.1blog.org/pace-program-solar-financing/> (last visited July 19, 2011) (noting that the Berkeley First Program was the first in the nation in 2008); PACENOW.ORG, <http://pacenow.org/blog/> (last visited July 19, 2011) (noting that twenty-seven states allow or have adopted legislation for PACE programs) [hereinafter PACENOW.ORG BLOG].

3. Ed Brock, *‘Green’ Loan Programs Spread At Rapid Pace*, AM. CITY & CNTY. (Jan. 1, 2010), <http://americancityandcounty.com/topics/green/green-loan-programs-201001>.

4. Jack D. Hidari, *A Market Solution for Achieving “Green,”* 88 HARV. BUS. REV. 41, Jan.–Feb. 2010, at 50–51.

5. Christopher Mims, *The No-Money-Down Solar Plan*, SCI. AM., Dec. 2009, at 50 (including PACE financing on a list of twenty ideas that could change the world).

6. WHITE HOUSE, POLICY FRAMEWORK FOR PACE FINANCING PROGRAMS 2 (2009) [hereinafter WHITE HOUSE FRAMEWORK], available at http://www.whitehouse.gov/assets/documents/PACE_Principles.pdf.

7. *About PACE*, PACENOW.ORG, <http://pacenow.org/blog/about-pace/> (last visited July 19, 2011).

8. *See infra* Part III.A; Todd Woody, *Loan Giants Opt to Block Energy Programs*, N.Y. TIMES, July 4, 2010, at A12, available at <http://www.nytimes.com/2010/07/04/business/energy-environment/04solar.html>; *see also* Audrey Dutton &

mortgage lending industry and mortgage regulators was predictable and likely will persist.⁹

The primary concern expressed by federal mortgage regulators was that the property tax liens integral to PACE financing “alter traditional lending priorities.”¹⁰ State and local governments, as well as environmental advocates, responded by filing lawsuits in defense of PACE.¹¹ These suits argue that liens associated with PACE financing are no different than other property tax assessments that have traditionally been given priority over existing mortgage liens.¹² PACE advocates also are lobbying for enactment of federal legislation that will establish a lien priority for PACE financing.¹³ This Article explores the more fundamental questions of whether PACE programs are the best option for promoting investment in residential alternative energy and whether litigation or legislation to preserve PACE programs is worth the effort. PACE programs promised benefits to homeowners that the programs could not deliver.¹⁴ The core problem with these promises is that the PACE program structure does not account

Peter Schroeder, *PACE Programs On Hold*, THE BOND BUYER, July 8, 2010, http://www.bondbuyer.com/issues/119_378/federal_housing-1014475-1.html.

9. ANDREW BRAAKSMA ET AL., UNIV. OF MINN. ENVTL. SUSTAINABILITY CLINIC, REPORT ON A PROPERTY ASSESSED CLEAN ENERGY (PACE) PROGRAM FOR THE CITY OF MINNEAPOLIS 36–38 (2010), *available at* <http://www.law.umn.edu/uploads/p0/Xo/p0Xo6vryak40-5QNQl7XwA/PACE-REPORT-FINAL-pdf.pdf>.

10. FHFA STATEMENT ON CERTAIN ENERGY RETROFIT LOAN PROGRAMS, FED. HOUS. FIN. AGENCY (July 6, 2010), http://www.fhfa.gov/webfiles/15884/PACE_STMT7610.pdf.

11. Complaint, *City of Palm Desert v. Fed. Hous. Fin. Agency*, (N.D. Cal. Oct. 4, 2010) (No. CV 10 4482), 2010 WL 4236788; Complaint, *County of Sonoma v. Fed. Hous. Fin. Agency*, (N.D. Cal. July 26, 2010) (No. CV 10 3270 EMC), 2010 WL 3012310; Complaint, *Natural Res. Def. Council v. Fed. Hous. Fin. Auth.*, (S.D.N.Y. Oct. 6, 2010) (No. CV 10 7467), 2010 WL 4000042; Complaint, *Sierra Club v. Fed. Hous. Fin. Agency*, (N.D. Cal. July 29, 2010) (No. CV 10 3317), 2010 WL 3141131; Complaint, *California ex rel. Brown v. Fed. Hous. Fin. Agency*, (N.D. Cal. July 14, 2010) (No. CV 10 3084), 2010 WL 3593758; *Town of Babylon v. Fed. Hous. Fin. Agency*, (E.D.N.Y. Oct. 28, 2010) (No. CV 10 4916), 2011 WL 2314989.

12. *See, e.g.*, Complaint at 8, *California ex rel. Brown*, 2010 WL 3593758 (No. CV 10 3084) (“PACE financing is not accomplished through loans, but through assessments.”).

13. PACE Assessment Protection Act of 2010, S. 3642, 111th Cong. (2010); PACE Assessment Protection Act of 2010, H.R. 5766, 111th Cong. (2010); *see also* Letter from Representative Doris O. Matsui to Edward J. DeMarco, Acting Director, Fed. Hous. Fin. Agency (Aug. 31, 2010), *available at* http://www.matsui.house.gov/images/stories/pace_ltr_to_fhfa4.pdf; Letter from Fifty Members of Congress to Barack Obama, President of the United States (July 19, 2010), *available at* http://www.matsui.house.gov/images/stories/pace_letter_to_president.pdf.

14. *See infra* Part II.

for practical realities of the real estate market. PACE has been promoted as a national strategy for financing residential energy improvements without accurately representing the program to homeowners and without a careful analysis of the long-term sustainability of the program.

The primary argument in favor of PACE programs is that homeowners will not be responsible for the improvements when a property sells because the repayments are in the form of a tax.¹⁵ This assertion fails to account for the existence of bargaining between home buyers and sellers and for the power of mortgage lenders to require repayment of the loan on transfer. In actual practice, PACE financing is likely to operate similarly to mortgage loans on transfer of the property.¹⁶

This analytic error is symptomatic of a theoretical flaw in the design of PACE programs. These programs have been conceptualized as an alternative to, rather than as a form of, real estate financing. Supporters present PACE as a public investment in energy improvements similar to a local government improving a street and assessing construction costs on property owners. There are important public policy concerns underlying investment in residential energy improvements, but PACE is more properly characterized as a voluntary choice made by a homeowner to accept public financing secured by her property. The failure of existing PACE programs to adequately anticipate the adverse secondary mortgage market reaction is a prominent example of this problem.

Part I of this Article explains the mechanics of PACE financing and the basics of residential energy improvement investments.¹⁷ It also explains that the primary argument in favor of PACE programs is that tying repayment to property tax obligations removes homeowner concerns about responsibility for the financing when the homeowner sells the property.¹⁸ Part II highlights the theoretical and practical flaws with this underlying theory, including why PACE financing does not overturn the market dynamics that make homeowners installing energy improvements responsible for the economic consequences of that decision.¹⁹ When properly

15. See *infra* notes 48–51.

16. See *infra* Part II.

17. See *infra* Part I.

18. See *infra* notes 49–52.

19. See *infra* Part II.

characterized and understood as a home financing technique, PACE loses much of its appeal as a means of resolving long-standing homeowner concerns about investments in residential energy improvements.

Part III discusses the dispute between PACE programs and mortgage lenders and the broader problem of how PACE tax liens interact with mortgage liens.²⁰ Part IV looks at loan cost and financing availability with PACE, which are two other areas where PACE advocates overstate the advantage of this financing method.²¹

The last two parts of this Article draw lessons from the demise of PACE programs. Part V suggests that PACE programs have demonstrated the importance of governments organizing the market for residential energy improvements.²² Part VI suggests a different and more modest model for how PACE can better incorporate some of the advantages offered by tax assessed recoupment of financing charges.²³

I. HOW PACE WORKS

PACE was created to offer longer-term financing that would overcome impediments to homeowner investment in solar energy and other energy production or efficiency technologies. This Part begins with basic information on investments in residential energy improvements and then discusses the fundamentals of PACE financing.

A. *Homeowner Economics for Residential Energy Improvements*

Homeowners can invest in energy improvements by either constructing alternative energy systems that produce electricity or heat, or by installing efficiency measures that save on the consumption of energy. Alternative energy systems available for residences include solar, wind, and geothermal systems.²⁴ Energy efficiency programs range from tiny

20. *See infra* Part III.

21. *See infra* Part IV.

22. *See infra* Part V.

23. *See infra* Part VI.

24. *See generally* Edna Sussman, *Reshaping Municipal and County Laws to Foster Green Building, Energy Efficiency, and Renewable Energy*, 16 N.Y.U. ENVTL. L.J. 1 (2008) (discussing the use of solar, wind, and geothermal technologies in residential situations); *see also* I.R.C. § 25D(a) (2010) (allowing a

measures, like switching to fluorescent light bulbs, to investments that cost thousands of dollars, such as replacing heating and cooling equipment.²⁵ In many cases, energy efficiency results in rapid payback periods for the investment.²⁶

The most popular alternative energy system for homeowners is solar photovoltaic (PV), which transforms solar energy into electricity.²⁷ The cost of a solar PV system depends on the system's size, but even a smaller three-kilowatt system has a gross installation cost of approximately \$22,500.²⁸ State and local governments, utility companies, and non-profits provide a vast array of financing incentives and outreach programs to encourage homeowners to invest in energy efficiency measures, which improve the economic viability of installing these systems.²⁹ In states with favorable "net

tax credit for residential "solar electric," "solar water heating," "fuel cell," "small wind energy," and "geothermal heat pump" expenditures).

25. See, e.g., Howard Geller, *Efficiency that Saves Money, Cuts Pollution*, DENVER POST, Dec. 29, 2010, available at http://www.denverpost.com/opinion/ci_16959937 (discussing Xcel Energy's energy-efficiency program to educate, assist, and help pay for efficiency measures).

26. See, e.g., *Payback Period Example 1*, UNITED STATES DEP'T OF HOUS. & URBAN DEV., <http://www.hud.gov/offices/cpd/affordablehousing/training/web/energy/cost/example1.cfm> (last updated Mar. 26, 2010) (describing a payback period of less than seven years for the incremental cost of purchasing a new high-efficiency furnace).

27. JASON COUGHLIN, NAT'L RENEWABLE ENERGY LAB., PHOTOVOLTAICS (PV) AS AN ELIGIBLE MEASURE IN RESIDENTIAL PACE PROGRAMS: BENEFITS AND CHALLENGES 1 (June 2010) (noting that homeowners obtaining PACE loans overwhelmingly chose solar PV even when the PACE program funds other alternative energy production or efficiency investments). Solar thermal systems are used to heat water and do not create additional value for the homeowner that can be sold back to the system. See NAT'L RENEWABLE ENERGY LAB., 2008 SOLAR TECHNOLOGIES MARKET REPORT 6–10 (Jan. 2010) (discussing the increase in installation of solar PV systems in the United States).

28. NAT'L RENEWABLE ENERGY LAB., 2008 SOLAR TECHNOLOGIES MARKET REPORT 51 n.31 (Jan. 2010) (using \$7.50 per watt as the installed cost); see also GALEN BARBOSE ET AL., LAWRENCE BERKELEY NAT'L LAB., TRACKING THE SUN III, THE INSTALLED COST OF PHOTOVOLTAICS IN THE U.S. FROM 1998–2009 1 (Dec. 2010) (showing the capacity-weighted average installed cost of systems completed in 2009—in terms of real 2009 dollars per installed watt and prior to receipt of any direct financial incentives or tax credits—was \$7.5/Watt, virtually unchanged from 2008).

29. See I.R.C. § 25D (2009) (allowing a federal tax credit of 30% of the net system cost); see also RESIDENTIAL RENEWABLE ENERGY TAX CREDIT, DATABASE OF STATE INCENTIVES FOR RENEWABLES & EFFICIENCY, http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=US37F&re=1&ee=1 (last updated Feb. 18, 2010). Many states also have a variety of incentive programs, including rebates, tax credits, and the sales tax exemption of solar installations. See, e.g., Heather Hughes, *Enabling Investment in Environmental Sustainability*, 85 IND. L.J. 597, 625–26 (2010). Utilities in some areas contribute to homeowner

metering” and “feed-in tariff” laws, homeowners not only use the electricity produced, but they also can return any unused generated electricity to the electricity grid and obtain payment from the local utility at regulated prices.³⁰ The net cost of a solar PV system, therefore, will vary substantially with the incentives and regulatory structure at the location of the installation. Because the price of electricity can vary substantially across the country, homeowners’ incentives to invest in alternative energy systems vary widely.³¹

The payback for solar systems varies by location for two other reasons. First, the fact that it is much sunnier in Phoenix than Seattle obviously matters, because the amount of electricity produced by the system will vary based on the solar resources of the location. Second, the price of electricity in different parts of the country can vary substantially. In areas like Southern California with substantial government incentives, high utility rates, and sunny skies, the monthly savings and revenue from a solar energy system can exceed the monthly financed cost of the system.³² In contrast, solar energy

installation of solar systems by providing rebates or “renewable energy credits,” which are payments to homeowners for renewable energy production that a utility can claim and apply to a state renewable portfolio standard mandating that the utility generate a certain percentage of its power from renewable sources. Megan Hiorth, Note, *Are Traditional Property Rights Receding With Renewable Energy on the Horizon?*, 62 RUTGERS L. REV. 527, 547–48 (2010) (explaining Solar Renewable Energy Certificates in New Jersey); see, e.g., *Loan Helps Homeowners Upgrade Furnaces*, DETROIT NEWS, Nov. 19, 2010, at H10 (describing the Michigan Saves program, which makes low-interest loans for energy efficiency improvements); DSIRE.ORG, <http://www.dsireusa.org/Index.cfm?RE=0&EE=1> (last visited July 21, 2011) (listing state incentives for energy efficiency); *Sustainable Home Initiative in the New Economy*, CITY OF ATLANTA, http://www.atlantaga.gov/mayor/shine_080410.aspx (last visited July 21, 2011) (describing a city program for energy efficiency); Geller, *supra* note 25.

30. See Sara Bronin, *Curbing Energy Sprawl With Smallgrids*, 43 CONN. L. REV. 547, 550–51 (2010) (“[A] homeowner with a solar panel installation that produces more electricity than she uses . . . can only ‘sell’ it back to local electric utility companies under state rules governing such transactions, known as net metering.”); KARLYNN CORY ET AL., NAT’L RENEWABLE ENERGY LAB., FEED-IN TARIFF POLICY: DESIGN, IMPLEMENTATION, AND RPS POLICY INTERACTIONS 2 (Mar. 2009) (observing that feed-in tariff “policies may require utilities to purchase either electricity, or both electricity and the renewable energy (RE) attributes from eligible renewable energy generators”).

31. See, e.g., U.S. ENERGY INFO. ADMIN., AVERAGE RETAIL PRICE OF ELECTRICITY TO ULTIMATE CUSTOMERS BY END-USE SECTOR, BY STATE (2011), available at http://www.eia.gov/cneaf/electricity/epm/table5_6_a.html (last updated Mar. 11, 2011) (indicating electricity costs ranging from nineteen to nine cents per kilowatt hour in the contiguous United States).

32. See PAUL DENHOLM ET AL., NAT’L RENEWABLE ENERGY LAB., BREAK-EVEN COST FOR RESIDENTIAL PHOTOVOLTAICS IN THE UNITED STATES: KEY DRIVERS

has long payback periods in many other areas of the country.³³ Even though the economics of solar are not always favorable, it is clear that social, environmental, and ideological concerns still motivate many homeowners to invest in PV systems.³⁴

B. The PACE Financing System

The substantial investment required for many energy improvements, especially alternative energy production systems, means that homeowners unable or unwilling to pay up-front for these improvements must obtain financing. Some homeowners are unable to obtain financing on any terms, and other homeowners cannot obtain financing at a cost that makes the investment affordable relative to the energy cost savings.³⁵ Even when financing is available, homeowners resist making investments out of concern that they will have to pay the remaining balance on the financing when the home is sold or refinanced.³⁶

PACE was developed as a public financing solution to these concerns. This Subpart begins by describing the structure of PACE programs and then outlines the purported advantages of PACE programs for homeowners.

AND SENSITIVITIES 5–6 (Dec. 2009) (National Renewable Energy Laboratory (NREL) report that expresses this idea by noting how much solar PV would have to cost in order to allow a break-even point). In most areas of the country, solar PV would have to cost less than five dollars per watt, whereas in areas with high solar resources and high electricity costs, like California, or high electricity costs and robust incentives, like New York, the break-even cost per watt could be over eight dollars. *Id.*

33. BRAAKSMA ET AL., *supra* note 9, at 24 (calculating that, depending on the assumptions made in the process, the solar PV payback period in Minnesota would be somewhere between seventeen and thirty-seven years).

34. *Id.* at 27 (discussing a survey indicating that environmental benefits encouraged homeowners to invest in solar PV, and that they were willing to pay nearly 150% of their current electricity costs as a result).

35. NAT'L RES. DEF. COUNSEL ET AL., PROPERTY ASSESSED CLEAN ENERGY ("PACE") PROGRAMS WHITE PAPER 12 (May 3, 2010), <http://pacenow.org/documents/PACE%20White%20Paper%20May%203%20update.pdf> (stating that "the lack of non-traditional consumer financing for such projects was cited by the CEQ Report as a major barrier to substantive adoption of energy efficiency retrofits"); Jonathon B. Wilson et al., *The Great PACE Controversy*, 25 PROP. & PROB. 38, 38 (2011).

36. NAT'L RENEWABLE ENERGY LAB., U.S. DEPT OF ENERGY, PROPERTY ASSESSED CLEAN ENERGY (PACE) FINANCING OF RENEWABLES AND EFFICIENCY 1 (2010), <http://www.nrel.gov/docs/fy10osti/47097.pdf> ("[PACE reduces] concern about investment recovery when the property is sold, because the financing is tied to the property itself, rather than to the owner.").

1. Essential Elements of PACE

PACE relies on property tax special assessments by local government units to fund energy improvements by residential homeowners.³⁷ Unlike most property tax assessments, the homeowner accepting PACE financing voluntarily assumes the obligation to make future property tax payments.³⁸ In order for a municipality to pass such ordinances, a state legislature usually must enact enabling legislation permitting local government units to create this unusual form of property tax assessment.³⁹

PACE programs require access to a funding source to support homeowners. Local governments have taken two approaches to obtaining these funds. Many PACE programs rely on bond financing.⁴⁰ The local government unit issues a bond and promises repayment based on the proceeds of property tax assessments.⁴¹ Alternatively, some local government units lend general reserve funds to homeowners for PACE projects.⁴²

37. Property tax special assessments typically are levied against property owners in a certain geographic area that have benefited from a particular public improvement, such as a new street or sidewalks. Gregory G. Brooker, *Distorted Federalism: the Resolution Trust Corporation and Local Special Assessments*, 15 *HAMLIN L. REV.* 327, 336–37 (1992).

38. ANNIE CARMICHAEL, *VOTE SOLAR, PROPERTY ASSESSED CLEAN ENERGY (PACE) ENABLING LEGISLATION* (Mar. 18, 2010); *see also* HANNAH MULLER & SARAH TRUITT, U.S. DEP'T OF ENERGY, *SOLAR POWERING YOUR COMMUNITY: A GUIDE FOR LOCAL GOVERNMENTS* 35 (July 2009) ("Property assessed clean energy programs are typically 100% opt-in, and property tax expenses remain unchanged for those who choose not to participate."); Joel B. Eisen, *Can Urban Solar Become a 'Disruptive' Technology?: The Case for Solar Utilities*, 24 *NOTRE DAME J.L. ETHICS & PUB. POL'Y* 53, 84 (2010) ("[P]roperty owners [have] the option of installing renewable energy projects and paying for them over a period of years by adding specified amounts to their property tax bills."); WHITE HOUSE FRAMEWORK, *supra* note 6.

39. CARMICHAEL, *supra* note 38. In some states, such as Hawaii and Florida, state law is thought to provide inherent authority for PACE programs. *See PACE Financing*, DSIRE.ORG, <http://www.dsireusa.org/solar/solarpolicyguide/?id=26> (last visited July 21, 2011).

40. Erin Elizabeth Burg Hupp, *Refining Green Building Regulations and Funding Green Buildings in Order to Achieve Greenhouse Gas Reductions*, 42 *URB. LAW.* 639, 645–46 (2010) (describing the use of PACE bonds).

41. *Id.*; *see also* Eisen, *supra* note 38.

42. Robert Selna, *Sonoma County Resists Feds on Home Energy Loans*, S.F. CHRONICLE, July 29, 2010, at A1, *available at* http://articles.sfgate.com/2010-07-29/news/22003633_1_sonoma-county-property-taxes-federal-agency (noting that the Sonoma County "PACE program is funded by \$100 million from its treasury").

PACE programs offer homeowners long-term financing, with loan terms up to twenty years.⁴³ These long loan terms make more favorable payback ratios possible for expensive investments in residential alternative energy systems. Purchase of a solar PV system may seem prohibitive to a homeowner if the monthly savings in electricity use (or payments for electricity production) are substantially less than the monthly payments on the loan for the system. By stretching the loan terms to fifteen or twenty years, PACE programs can lower the monthly payments and thereby improve the ratio of monthly savings to monthly costs.⁴⁴

2. Claimed Advantages of PACE Financing

Proponents of the PACE financing system generally voice two types of advantages for homeowners: (1) cost-free transfers of the financing obligation,⁴⁵ and (2) better financing terms.⁴⁶ The claim that PACE programs allow for cost-free transfers of the financing obligation is based on the unique characteristics of paying property tax assessments. These assessments are made against the current owner of the property rather than the person who agreed to the assessment. The argument that PACE provides better financing terms, on the other hand, is a function of the priority given to property tax assessments relative to mortgage loans or other liens against the property. The lien priority afforded property tax assessments provides advantages to the investors in PACE bonds that PACE advocates believe will result in lower costs for homeowners obtaining PACE financing.

43. BRAAKSMA ET AL., *supra* note 9, at 10 (noting PACE assessment terms ranging from five to twenty years). PACE terms for the Sonoma County program are five to ten years for loan amounts under \$5,000 and ten or twenty years for amounts over \$5,000. ENERGY INDEPENDENCE, SCEIP ANNUAL PAYMENT CALCULATOR, <http://sonomacountyenergy.org/lower.php?url=calculator> (last visited July 28, 2011). All loans in the Boulder County program have fifteen year terms. MULLER & TRUITT, *supra* note 38, at 37–38.

44. COUGHLIN, *supra* note 27 at 2–3 (discussing the savings to investment ratio); NAT'L RES. DEF. COUNCIL ET AL., *supra* note 35, at 4 ("PACE is designed to finance projects that are cash positive for participants over the useful life of the retrofit.").

45. *See infra* Part I.B.2.a.

46. *See infra* Part I.B.2.b.

a. Cost-Free Transfers by Tying Repayment to Tax Assessments

The most strongly promoted advantage of PACE programs is that PACE financing resolves homeowner concerns about paying off long-term financing for energy improvements. If the homeowner later sells the property, PACE allegedly transfers the burden of repaying energy improvements from the homeowner originating the PACE financing to the subsequent property owner. The primary argument for PACE programs, therefore, is that homeowners can confidently invest in long-term energy improvements knowing that the burden of repayment will fall on future owners of the home if the property is sold. In other words, the transfer of the financing obligation is “cost-free.”⁴⁷

PACE programs,⁴⁸ analysts and academics,⁴⁹ and environmental advocates⁵⁰ all emphasize the importance of this purported benefit. An influential White House report

47. Given that PACE financing is offered for lengthy loan terms, a cost-free transfer to future homeowners has even greater value because the homeowner is more likely to transfer the obligation during the life of the loan.

48. OFFICE OF ENERGY AND SUSTAINABLE DEV., BERKELEY FIRST SOLAR FINANCING, CITY OF BERKELEY, <http://www.ci.berkeley.ca.us/ContentDisplay.aspx?id=26580> (last visited July 21, 2011) (“Since the solar system stays with the property, so does the tax obligation—if the property is transferred or sold, the new owners will pay the remaining tax obligation.”); *see also* PACENOW.ORG BLOG, *supra* note 2 (stating that “PACE assessments stay with a property upon sale, until they are fully repaid by future owners”).

49. COUGHLIN, *supra* note 27, at 3 (describing the cost-free transfer as “[o]ne of the pillars of PACE financing”); Eisen, *supra* note 38, at 85 (stating that “[b]ecause the debt is repaid through the property tax, if the homeowner moves before the system’s payoff period, the debt simply continues to be repaid by the next owner,” but noting concern about state servitude law on transfer of the property); *see also* John C. Dernbach et al., *Making the States Full Partners in a National Climate Change Effort: A Necessary Element for Sustainable Economic Development*, 40 ENVTL. L. REP. NEWS & ANALYSIS 10597 (2010); RYAN NORTH ET AL., GREEN REAL ESTATE SUMMIT 2010: WHAT ATTORNEYS, DEVELOPERS, REGULATORS, TENANTS & LENDERS NEED TO KNOW: THE EVOLVING PICTURE OF ENERGY EFFICIENCY RETROFITTING FOR NEW YORK CITY COMMERCIAL BUILDINGS 247, 261 (2010) (“An attractive feature of this model is that debt payments are tied to the property, not the property owner, which makes deeper and more extensive retrofits more viable since the loan stays with the property even if the current owner moves.”); Wilson, *supra* note 35, at 39.

50. Felicia Marcus & Justin Horner, *Response to the Quiet Revolution Revived: Sustainable Design, Land Use Regulation and the States* by Sarah Bronin, 40 ENVTL. L. REP. NEWS & ANALYSIS 10743 (2010) (Marcus and Horner are staff with the Natural Resources Defense Council); PACENOW.ORG BLOG, *supra* note 2 (“Assessment transfers upon sale—new owner benefits from improvements that stay with the property.”).

describes PACE financing as “attach[ing] the obligation to repay the cost of improvements to the property, not the individual borrower.”⁵¹ The Sonoma County, California PACE program claimed that “[a]ssessments are a lien on the property itself: when the property is sold, the assessment stays with the property.”⁵² One Block Off the Grid, an advocacy group, stated that “property tax financing solves the problem of ‘what happens when I sell my home?’ The simple answer is that the solar power system and whatever tax liability you have both go to the new owner of your home.”⁵³

Homeowners adopting PACE seemed convinced of this assertion. Surveys of participants in the Berkeley PACE program cite this purported benefit as an important motivator for obtaining PACE financing.⁵⁴ The *New York Times* quoted a PACE borrower from the Sonoma County project as stating that “part of the draw was that the loan goes with the property to the next owner.”⁵⁵

b. Better Financing Terms Through Lien Priority

The claim that PACE will offer better financing terms flows from the priority given to tax liens on real property. Real estate liens generally are ordered so that prior liens are paid in foreclosure before liens filed later in time.⁵⁶ For example, a mortgage loan used to buy the property takes priority over a later mortgage loan used to remodel the home.⁵⁷ The earliest

51. WHITE HOUSE FRAMEWORK, *supra* note 6.

52. *Energy Improvements*, SONOMA COUNTY ENERGY IMPROVEMENT PLAN, <http://www.sonomacountyenergy.org/lower.php?url=about-us> (last visited Dec. 30, 2010).

53. *PACE Program (Property Assessed Clean Energy) Financing*, ONE BLOCK OFF THE GRID, <http://solarfinancing.1bog.org/pace-program-solar-financing/> (last visited Dec. 30, 2010).

54. OFFICE OF ENERGY AND SUSTAINABLE DEV., CITY OF BERKELEY, BERKELEY FIRST INITIAL EVALUATION 2 (2009) [hereinafter BERKELEY FIRST INITIAL EVALUATION], available at http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Energy_and_Sustainable_Development/Berkeley%20FIRST%20Initial%20%20Evaluation%201-10.pdf.

55. Todd Woody, *Loan Giants Threaten Energy Efficiency Programs*, N.Y. TIMES, July 1, 2010, at B1, available at <http://www.nytimes.com/2010/07/01/business/energy-environment/01solar.html?pagewanted=1&r=1&emc=eta1>.

56. GRANT S. NELSON & DALE A. WHITMAN, REAL ESTATE FINANCE LAW §§ 7.31–7.32 (West Group 5th ed. 2007).

57. Donna S. Harkness, *Predatory Lending Prevention Project: Prescribing a Cure for the Home Equity Loss Ailing the Elderly*, 10 B.U. PUB. INT. L.J. 1, 34 (2000).

and thus highest priority mortgage loan is known as a first lien, while the subsequent mortgage loan is deemed a second lien.⁵⁸ If the homeowner defaults on the second lien loan, the first lien mortgage holder retains the lien even if the second lien mortgage holder forecloses; however, the converse is not true.⁵⁹

Tax assessments are an exception to this lien priority rule. Generally, unpaid property tax assessments have priority over other liens, regardless of the date the prior liens were recorded or when the tax assessments became delinquent.⁶⁰ This makes the lien priority for PACE financing senior to liens for mortgage loans closed prior to the homeowner's acceptance of the PACE financing. In the case of default by the homeowner on the PACE assessment, local governments and investors in PACE bonds can expect to collect the balance owed on a PACE assessment before any recovery by a mortgage lender.

PACE program advocates claim two advantages that arise from this lien priority. First, this advantaged lien position and consequent investor security of repayment can lead to lower costs for PACE financing compared to private real estate financing.⁶¹ Second, lien priority for repayment in default means that investors do not need extensive underwriting and assurances regarding the homeowner's repayment ability that would normally be imposed by a mortgage lender. The lack of need to carefully underwrite the risks suggests the possibility of making PACE financing available to a much broader group of homeowners than those who would qualify for private financing.⁶²

58. 59 C.J.S. *Mortgages* § 292 (2011).

59. NELSON & WHITMAN, *supra* note 56, §§ 1.1, 7.31–7.32.

60. James J. Kelly, *Bringing Clarity to Title Clearing: Tax Foreclosure and Due Process in the Internet Age*, 77 U. CIN. L. REV. 63, 73 (2008).

61. Marcus & Horner, *supra* note 50, at 10745. MARK BOLINGER, BERKELEY LAB AND THE CLEAN ENERGY STATES ALLIANCE, PROPERTY TAX ASSESSMENTS AS A FINANCE VEHICLE FOR RESIDENTIAL PV INSTALLATIONS: OPPORTUNITIES AND POTENTIAL LIMITATIONS (February 2008), <http://eetd.lbl.gov/ea/ems/cases/property-tax-finance.pdf>.

62. *See, e.g.*, Interview by Alex Wise with Cisco DeVries, President, Renewable Funding (May 26, 2010) (“One of the remarkable things about PACE is that it really opens up the qualifications to a huge subset of folks. Essentially any property owner who owns their home in good standing, who is up to date on their taxes and their mortgage, and is not underwater on their property, meaning that their property is not worth less than their mortgage, generally qualifies. So, this means that we’re not checking people’s personal credit, we’re not getting into the details of somebody’s own personal income.”); *see also infra* text accompanying note 150.

II. PACE AS REAL ESTATE FINANCING

The arguments for homeowner advantages with PACE are predicated on the idea that tying repayment to property tax assessments radically changes the characteristics of financing for homeowners. Unfortunately, the dynamics and constraints of the real estate finance market shape the realities of PACE financing. As a result, the claimed benefits for PACE programs disappear upon closer examination.⁶³ This Part critically analyzes the argument that use of property tax financing removes the property transfer risks for homeowners in financing energy improvements and ultimately concludes that homeowners are likely to pay any remaining PACE financing obligation when they transfer their property.

A. *Transfer Risks Associated with PACE Financing*

The notion that PACE financing, as compared to other real estate financing, creates a lien that runs with the property rather than the individual owner is true in a literal sense. A homeowner voluntarily agrees to a tax assessment that can only be collected against the property and is not a personal obligation of the homeowner.⁶⁴ PACE programs suggest that this result means that the homeowner is not required to pay off the remaining balance on the PACE financing because the lien will simply persist on the property and be repaid in the form of future property tax assessments.⁶⁵ But real estate sale and lending transactions do not operate in a vacuum, so the purported cost-free transfer of PACE financing obligations will not occur with any frequency. Buyers of real estate typically consider all liens on the property, and PACE assessments should be no exception.⁶⁶ A property tax special assessment

63. This Article is limited to an analysis of PACE as a means of residential energy finance. The PACE concept also could be used to fund commercial energy improvements, but a detailed analysis of PACE in the commercial context is beyond the scope of this Article. *See infra* note 141.

64. 5 RICHARD R. POWELL, POWELL ON REAL PROPERTY § 39.04 (2008). In a small minority of states, property taxes can be held a personal obligation of the homeowner. *Id.* at n.1.

65. *See supra* Part I.B.2.a. *See also* Eisen, *supra* note 38, at 85 (“Because the debt is repaid through the property tax, if the homeowner moves before the system’s payoff period, the debt simply continues to be repaid by the next owner.”).

66. *See, e.g.*, Ronald Benton Brown et al., *Real Estate Brokerage: Recent Changes in Relationships and a Proposed Cure*, 29 CREIGHTON L. REV. 25, 35

that is the subject of negotiation between the seller (the “PACE homeowner” who obtained the financing) and the home buyer has two foreseeable outcomes: (1) the PACE homeowner pays off the remaining balance of the PACE financing at the time of sale, or (2) the buyer assumes responsibility for future special assessments.

In the first scenario, if the PACE homeowner pays off the assessment upon the sale of the property, she will have the amount of outstanding PACE lien deducted from the closing proceeds. This is the same outcome for the seller as would have occurred if she had used mortgage financing to install the energy improvements because existing mortgage loans routinely are paid off when the buyer obtains financing for the property.⁶⁷ In the second scenario, rational buyers will assume responsibility for the PACE financing only if they receive a correspondingly lower sale price for the home, or some other consideration.

The result in either scenario is the same. The PACE homeowner walks away from the sale with less money because of the PACE financing obligation—either by paying off the assessment prior to or at closing, or by accepting a lower sales price in return. Thus, PACE does not resolve the problem of the seller being responsible for the long-term consequence of PACE financing she used to install energy-related improvements.

This result holds regardless of any increase in home value resulting from the energy improvements. For example, consider two identical homes sitting next to each other. Home A has a solar system made possible with a \$10,000 remaining PACE assessment, and Home B has neither a solar system nor a PACE assessment. If a rational buyer values the solar system as worth \$12,000 due to the energy savings or environmental concerns, then she will be willing to offer \$12,000 more for Home A if the seller pays off the PACE assessment or \$2,000 more for Home A if the assessment becomes the obligation of the buyer. In either case, the seller of Home A is \$2,000 better off than the seller of Home B. Conversely, if the solar system does not increase the value of Home A in the view of the buyer,

(1995); REALESTATEEXPRESS.COM, <http://www.realestatelicenseexpress.com/2010/07/real-estate-basics-real-estate-taxation/> (last visited July 8, 2011) (“Unless there is a written agreement in place stating otherwise, special assessment taxes must be paid in full prior to any transfer of property.”).

67. Joseph R. Mason, *The Economic Impact Of Eliminating Preemption of State Consumer Protection Laws*, U. PA. J. BUS. L. 781, 786 (2010).

then the seller who installed the solar system with PACE financing will take a \$10,000 loss on the investment because she will either have to pay off the \$10,000, or she will receive \$10,000 less for the house price with the buyer taking subject to the repayment obligation, or some combination thereof. The perceived value of the energy improvement to the buyer impacts the amount she will pay for the house and thus the amount the seller will receive in the transaction, but the seller's use of PACE financing does not change that calculation.

B. Arguments for the Cost-Free PACE Transfer Are Erroneous

PACE proponents have responded to the problem of real estate negotiation in four ways: (1) buyers do not consider property tax special assessments when negotiating home sale prices; (2) buyers will not negotiate the price because the energy improvements are worth more than the amount of the PACE assessment; (3) PACE provides the option of the buyer assuming the obligation, which is not available for other forms of financing; and, (4) PACE programs can require lien assumption. None of these arguments fundamentally addresses the inaccuracy of the claim that PACE financing is essentially cost-free upon the transfer of the property.

1. Irrational Buyers

Home buyers could irrationally fail to notice or care about a property tax special assessment because they will treat a property tax assessment differently than another type of obligation that runs with the property. A lack of economic rationality in consumer behavior is well documented,⁶⁸ so there may be some validity to this view. Nevertheless, the limited data available on resale or refinancing of homes with the initial PACE programs support the view that homeowners will pay off PACE liens rather than engage in a cost-free transfer of the obligation.⁶⁹

68. See, e.g., Oren Bar-Gill & Elizabeth Warren, *Making Credit Safer*, 157 U. PA. L. REV. 1, 21–22 (2008).

69. COUGHLIN, *supra* note 27, at 3. Coughlin reports that there has been one home sold with PACE financing through the Boulder program and that “the lien was paid off by the seller as a condition of the sale.” Coughlin also reports that two homes with PACE loans in the Palm Desert program were refinanced and that “[i]n both cases, the PACE liens were paid off as part of the transaction.” *Id.*

While more sale data would be helpful in evaluating the extent of economically irrational consumer behavior, the claims of PACE advocates will not be resolved simply through an empirical investigation. In assessing the conduct of home buyers facing PACE assessments, a starting point would be to determine how often PACE homeowners pay off the remaining financing upon the sale of the property. But even if buyers are purchasing properties subject to a PACE property tax assessment in large numbers, evaluating whether irrational buyer behavior exists and the extent of that behavior, would require determining if the buyer bargained on sales price or other consideration in the negotiation process. Because property and tax records do not show whether bargaining occurred, uncovering this information would require interviewing the buyers, and perhaps sellers, following any sale of a home with PACE financing. And even then, this type of evaluation does not account for likely changes in buyer behavior if PACE programs reach a large enough scale such that real estate agents are familiar with this type of tax lien.

While information on the rationality of home buyers vis-à-vis PACE obligations would be useful, it still will not resolve the issue of whether PACE programs should continue to promote PACE financing as a way to eliminate the homeowner's risk of having to pay off the obligation upon the transfer of the property. Promoters of PACE contend that PACE resolves homeowner concerns about being stuck with the cost of a solar system or other improvement if the homeowner sells the property before the loan is repaid.⁷⁰ Nothing about a PACE assessment, as opposed to a private mortgage lien, guarantees or even makes this result likely. Therefore, PACE programs, at best, can claim that they offer the possibility of a cost-free transfer if the person buying the home ignores the tax burden on the house. However, this is a much weaker claim than the current promotion of PACE as an essentially risk-free investment on sale of the property.

Finally, relying on home buyer ignorance or irrationality raises the issue of whether local governments should promote the benefits of a program based on the presumed irrationality of other citizens. Governments arguably have an obligation to ensure full disclosure of all information related to real estate transactions in which they have an interest.

70. *See supra* Part I.B.2.a.

2. Cost Savings

PACE advocates also stress that PACE financing is different than traditional financing because monthly savings from the investment exceed the monthly cost of investment.⁷¹ The logic is that a homeowner accepting PACE financing will have no further obligations upon the transfer of the property because new owners will want to obtain the benefits of that investment.⁷² This argument is premised on analytic error. The buyer of a property with a PACE assessment is concerned with the value of the improvement to her and how the improvement changes the market value of the property. Assume, for example, the buyer values a solar PV system and insulated walls at \$5,000. It does not matter if the PACE financing to achieve those improvements was for \$1,000 or \$20,000—the buyer will pay \$5,000 more. Or if the value of these improvements outweighs the cost of the PACE assessment, the PACE homeowner will not decrease the market price for the property because the decision to make the improvement with PACE financing was a bargain. Accordingly, the value of energy improvements is irrelevant to whether the PACE homeowner will have a cost-free opportunity to transfer the obligation to repay the PACE assessment to the buyer.

71. See, e.g., WHITE HOUSE FRAMEWORK, *supra* note 6, at 4–5 (supporting PACE funding only for an investment that will “pay for itself,” meaning an investment for which the “expected total utility bill savings are estimated to be greater than expected total costs (principal plus interest)”).

72. See, e.g., John Farrell, *Responding to Concerns with Municipal Financing of Energy Improvements*, NEW RULES PROJECT (April 2010), <http://www.newrules.org/energy/publications/responding-concerns-municipal-financing-energy-improvements> (explaining that because “PACE financing is attached to the property, not to the borrower, the energy savings and the costs stay with the property. While the PACE assessment—like any other—is negotiated during the sale of the property, it is the only financing model that allows the property owner to keep the financing costs tied to the energy savings or generation from PACE improvements.”). Underlying this argument may be a broader misunderstanding that PACE somehow transforms the financing of energy improvements into a special-purpose loan whose obligations to repay are tied to the performance of the energy improvements. There are businesses, at least in the commercial sector, offering such an arrangement, but PACE financing is an obligation to repay regardless of the performance of the energy improvements. See generally JULIE OSBORN ET AL., ERNEST ORLANDO LAWRENCE BERKELEY NAT’L LAB., *ASSESSING U.S. ESCO INDUSTRY: RESULTS FROM THE NAESCO DATABASE PROJECT* (2002), available at <http://eetd.lbl.gov/EA/EMP/reports/50304.pdf>.

3. The Benefit of Lien Assumption

The third argument that PACE proponents make is that PACE at least offers the opportunity for the homeowner to transfer the lien to the buyer, as opposed to the typical home mortgage loan, which is not assumable. Although this is true, it comes at a cost.

PACE financing is assumable because the buyer of the property can take over the financing obligation on the same terms to which the seller was obligated. Assumability of financing is beneficial to the buyer if it costs less than the first lien mortgage loan used to purchase the house. For example, if interest rates rise substantially between the time the PACE bond rate is set and the time the homeowner sells the house, PACE assessments could be an advantage to a buyer. In that situation, the PACE assessment would offer a lower financing cost relative to the buyer's purchase money mortgage, so she would pay less in overall financing costs by assuming the PACE lien.

Conversely, if interest rates are stable, fall, or rise less than the spread between the PACE rate and the market first lien mortgage rate, buying a home subject to a PACE lien is then a burden to the buyer of the property. Under these circumstances, the buyer would be better off forcing the PACE homeowner to pay off the tax lien. Because PACE financing comes at a noticeably higher price in the current market than a first lien mortgage loan,⁷³ assuming existing PACE financing will generally be a burden to the buyer.

In short, PACE loans are assumable financing. They come with the advantages, and disadvantages, of any transferrable, fixed-rate financing mechanism.⁷⁴ Assumability, however, does not create a cost-free transfer of the PACE obligation.

4. Required Lien Assumption

The last argument in support of the notion that PACE offers a risk-free transfer is that PACE can be modified to

73. *Infra* notes 109–10.

74. PACE loan assumability also means additional interest rate risk to the investor in a PACE bond. See Eurico J. Ferreira & G. Stacy Sirmans, *Interest-Rate Changes, Transaction Costs, and Assumable Loan Value*, 2 J. REAL EST. RES. 29, 32–34 (1987) (describing a model for valuing the right of loan assumption with rising interest rates).

require home buyers to assume the PACE lien. One state may already have taken this approach in its enabling legislation for PACE.⁷⁵ Unfortunately, this strategy will disadvantage all parties to the property transfer, including the PACE homeowner.

Requiring buyers to assume PACE financing restricts both the buyer and seller from exercising their options of either having the PACE homeowner pay off the lien or having the buyer add the value of the energy improvements to the price paid for the home. If the financing cost on the PACE lien exceeds the financing cost of the buyer's first lien mortgage, as is true with the cost of PACE financing in the current market,⁷⁶ compulsory lien assumption will increase the cost of the home purchase for the buyer.⁷⁷ A rational buyer in this circumstance will offer a lower price to the PACE homeowner in order to compensate for the burden of the PACE assessment.

III. THE RELATION OF PACE FINANCING TO EXISTING AND FUTURE MORTGAGE LOANS

Home buyers are not the only actors with control over whether a PACE lien survives a property transfer. Mortgage lenders for the buyers can require the pay-off of the PACE obligation as a condition of financing for new buyers. Homeowners who created or assumed a PACE lien can be required to satisfy the PACE obligation on refinancing, as with any existing lien on the property.⁷⁸ The actions of the secondary market in shutting down PACE reflect the reality of the mortgage lending industry's power to block the use of PACE as a long-term financing program for homeowners. This Part examines the current litigation brought by state and local governments and advocacy groups against federal regulators. The position of the governments and advocacy groups

75. See MINN. STAT. § 216C.436(2)(11) (2010).

76. See *infra* notes 104–08 and accompanying text.

77. In the event that interest rates rose enough in the period between PACE bonding and the home sale to close the gap between PACE rates and first lien mortgage rates, compulsory assumption does not add anything to the transaction. Buyers of a PACE home always have the option to assume the lien without such a requirement.

78. The Mortgage Professor's Website, *The Curse of Negative Equity: Is There An Escape?* (May 1, 2011), http://www.mtgprofessor.com/A%20-%20Amortization/the_curse_of_negative_equity_is_there_an_escape.htm.

defending PACE reflects the same analytic error that underlies the wrongfully claimed advantages of PACE for homeowners.

A. *Mortgage Lenders Versus the States*

When PACE programs began in 2008, PACE advocates stated that mortgage lenders were accepting the priority of the liens.⁷⁹ In July 2010, however, the government secondary mortgage market regulator, the Federal Housing Finance Agency (FHFA), issued a statement that mortgages that originated in a jurisdiction with a PACE program would be subject to significant restrictions.⁸⁰ FHFA is the federal regulator and conservator of the secondary mortgage market Government Sponsored Enterprises (GSEs), Fannie Mae and Freddie Mac.⁸¹ On August 31, 2010, the GSEs issued guidance statements indicating that they would not purchase mortgage loans if the homeowner had a PACE obligation unless the PACE program was structured so that the PACE lien was subordinate to the first lien mortgage loan.⁸² The Office of Comptroller of the Currency issued a similar guidance to the banks it regulated.⁸³

Existing or planned PACE programs across the country were suspended while waiting for a resolution to this dispute.⁸⁴

79. *About PACE*, *supra* note 7 (“All municipal assessments are accepted by mortgage lenders and acknowledged in their standard mortgage underwriting documents.”).

80. *FHFA Statement on Certain Energy Retrofit Loan Programs*, FED. HOUS. FIN. AGENCY (July 6, 2010) [hereinafter *FHFA Statement*], <http://www.fhfa.gov/webfiles/15884/PACESTMT7610.pdf>.

81. 12 U.S.C. § 4511 (2010).

82. *Bulletin to Freddie Mac Sellers and Servicers*, FREDDIE MAC, 1 (Aug. 31, 2010), <http://www.freddiemac.com/sell/guide/bulletins/pdf/bll1020.pdf>.

83. *Supervisory Guidance to Chief Executive Officers of All National Banks, Department and Division Heads, and All Examining Personnel*, OFFICE OF THE COMPTROLLER OF THE CURRENCY (July 6, 2010), <http://www.occ.treas.gov/news-issuances/bulletins/2010/bulletin-2010-25.html>. The Office of the Comptroller of the Currency is the primary regulator of national banks. Andru Wall, *The 2009 Stress Tests: A Model For Periodic Transparent Examinations of the Largest Bank Holding Companies*, 128 BANKING L.J. 291, 309 (2011).

84. Complaint at 4, *Natural Res. Def. Council v. Fed. Hous. Fin. Auth.*, No. 10 Civ. 7647 (S.D.N.Y. Oct. 6, 2010) (alleging that the FHFA and related guidance statements “collectively mandated an effective end to all residential PACE programs”); David Clucas, *County Suspends ClimateSmart Loans*, BOULDER COUNTY BUS. REPORT (May 14, 2010), <http://www.bchr.com/article.asp?id=51635> (“Boulder County officials have temporarily suspended issuing new residential ClimateSmart loans due to new federal guidelines and challenges from the government-backed lending giants Fannie Mae and Freddie Mac.”); Todd Woody, *Homeowners Must Pay Off Energy Improvement Loans*, N.Y. TIMES (Aug. 31,

Because the FHFA statement linked its underwriting restrictions to all mortgages in a jurisdiction with PACE rather than just properties with a PACE loan,⁸⁵ the existence of a PACE program would impact all residential home finance in a given community.

Therefore, the cost of PACE programs became unacceptable for most local governments.⁸⁶ State and local governments, along with environmental advocacy groups, struck back at the federal regulators with lawsuits claiming the agencies had violated the Administrative Procedure Act (APA).⁸⁷ These suits typically seek an injunction against

2010, 5:30 PM), <http://green.blogs.nytimes.com/2010/08/31/homeowners-must-pay-off-energy-improvement-loans/#more-68965> (“[T]he Federal Housing Finance Agency . . . guidance led to the halt of most PACE programs and left in limbo those homeowners who had already taken out energy improvement loans.”). The Sonoma County PACE program continued to offer financing but required program participants to assume the financial risk by signing a disclosure acknowledging that “participation in assessment financing programs . . . may be in violation of your mortgage documents.” Liz Yager, *Letter to Sonoma County Energy Improvement Program Participants*, SONOMA COUNTY ENERGY INDEPENDENCE PROGRAM (July 16, 2010), http://www.drivecms.com/uploads/sonomacountyenergy.org/SCEIP_Notice_to_Participants_071610.pdf. The Sonoma County program is attempting to continue. Lorelee Stevens, *SCEIP, Loan Officials Finding Solutions*, NORTH BAY BUS. J. (Nov. 15, 2010, 4:55 AM), <http://www.northbaybusinessjournal.com/26979/sceip-loan-officials-finding-solutions>.

85. *FHFA Statement*, *supra* note 80, at 2 (explaining that FHFA directed Fannie Mae and Freddie Mac to “[a]djust[] loan-to-value ratios to reflect the maximum permissible PACE loan amount available to borrowers in PACE jurisdictions”); *see also* Todd Woody, *A Blow to Home Retrofits*, N.Y. TIMES (July 6, 2010, 4:21 PM), <http://green.blogs.nytimes.com/2010/07/06/a-blow-to-home-energy-retrofits/> (“[FHFA] ordered lenders in areas where the programs are offered to lower the maximum all buyers can borrow to take into account the availability of PACE loans.”).

86. PACENOW.ORG BLOG, *supra* note 2 (observing that the federal regulatory actions “brought PACE to a standstill today”).

87. *See, e.g.*, Complaint at 11–12, *County of Sonoma v. Fed. Hous. Fin. Agency*, No. CV 10 3270 (N.D. Cal. July 26, 2010); Complaint at 14–16, *Natural Res. Def. Council v. Fed. Hous. Fin. Auth.*, No. 10 Civ. 7647 (S.D.N.Y. Oct. 6, 2010); Complaint at 13–15, *People ex rel. Brown v. Fed. Hous. Fin. Agency*, No. C10-03084 BZ (N.D. Cal. July 14, 2010). The governmental and environmental advocacy plaintiffs in these suits allege numerous violations of the APA, including that there is no rational relationship between the action taken by the regulators and their statutory authority regarding safety and soundness of the lending institutions, that the regulators’ actions were arbitrary and capricious, that the policy was not properly promulgated through rule-making procedures, and that the regulators failed to conduct an environmental impact statement. *See* Complaint at 11–12, *County of Sonoma v. Fed. Hous. Fin. Agency*, No. CV 10 3270 (N.D. Cal. July 26, 2010); Complaint at 14–16, *Natural Res. Def. Council v. Fed. Hous. Fin. Auth.*, No. 10 Civ. 7647 (S.D.N.Y. Oct. 6, 2010); Complaint at 13–15,

implementation of the underwriting restrictions by the federal mortgage and banking authorities.⁸⁸ They also seek declaratory relief.⁸⁹ The State of California and Sonoma County, for instance, asked the court to declare that PACE financing “is accomplished through assessments and not ‘loans.’”⁹⁰

B. How Failure to Acknowledge PACE as Real Estate Financing Defines the Dispute with the Secondary Mortgage Market

This Subpart discusses how plaintiffs’ description and legal framing of the PACE financing mechanism reflects the disconnect between the theories underlying PACE and the realities of real estate finance.⁹¹ The governmental and environmental plaintiffs argue that PACE financing is not a loan.⁹² They characterize PACE financing as identical to any other tax assessment by a local government, such as assessments for road paving.⁹³ Underlying this argument is the

People *ex rel.* Brown v. Fed. Hous. Fin. Agency, No. C10-03084 BZ (N.D. Cal. July 14, 2010).

88. See, e.g., Complaint at 15, County of Sonoma v. Fed. Hous. Fin. Agency, No. CV 10 3270 (N.D. Cal. July 26, 2010) (“[Sonoma County seeks] a temporary restraining order, preliminary injunction, and permanent injunction restraining and enjoining Fannie Mae and Freddie Mac from taking any adverse action against any mortgagee who is participating, or may participate, in SCEIP, or other action that has the effect of chilling participation in SCEIP.”).

89. *Id.* (asking the Court to “issue a declaratory judgment that Defendant FHFA violated NEPA and the APA”).

90. *Id.* (praying for the Court to “declare that under California Law, SCEIP financing is accomplished through assessments and not ‘loans’”); Complaint at 14, People *ex rel.* Brown v. Fed. Hous. Fin. Agency, No. C10-03084 BZ (N.D. Cal. July 14, 2010) (using precisely the same language).

91. It is beyond the purpose of this Article to analyze the competing administrative law claims underlying the plaintiffs’ assertions of a right to relief in these lawsuits.

92. Complaint at 9, County of Sonoma v. Fed. Hous. Fin. Agency, No. CV 10 3270 (N.D. Cal. July 26, 2010) (“[FHFA] mischaracteriz[ed] PACE assessments as ‘loans.’”); Complaint at 8, People *ex rel.* Brown v. Fed. Hous. Fin. Agency, No. C10-03084 BZ (N.D. Cal. July 14, 2010) (“California state law is clear: PACE financing is not accomplished through loans, but through assessments.”).

93. Complaint at 3, Sierra Club v. Fed. Hous. Fin. Agency, No. CV 10 3317 (N.D. Cal. July 29, 2010) (“PACE programs operate under well settled principles of California law by establishing assessments on homeowners’ properties. California relies upon its assessment power to fund municipal projects such as road paving and other improvements.”); Complaint at 5, People *ex rel.* Brown v. Fed. Hous. Fin. Agency, No. C10-03084 BZ (N.D. Cal. July 14, 2010) (“For well over 100 years, local governments in California have used their assessment

assertion that energy improvement financing involves the public purposes of greater energy efficiency or renewable energy production.⁹⁴

A focus on the public benefit of the financing, however, does not change the essential character of the PACE financing arrangement from the point of view of homeowners and lenders. PACE financing has all the characteristics of a mortgage loan other than the mechanism of billing and payment through property tax. Unlike a public works tax assessment, PACE financing is voluntarily assumed by the homeowner and provides cash to the homeowner for improvements that ultimately will be owned by the homeowner. From the lender's perspective, PACE financing constitutes another lien on the property for purposes of evaluating the value of the home as security in case of default by the homeowner on the mortgage loan.

Attempting to avoid characterizing PACE financing as a real estate secured loan results in the same type of analytic disconnect with respect to lenders' concerns that was evident in the claim that homeowners accepting PACE financing could engage in a risk-free sale of the property. For example, the Sierra Club argues that mortgage lenders have little risk of losing money in the case of foreclosure on a PACE homeowner because "the amount due to local governments upon foreclosure is limited to the periodic property assessments that are outstanding."⁹⁵ The State of California describes as "minimal" the impact on lenders when homes with PACE liens fall into foreclosure.⁹⁶ California illustrates its point with an example of PACE financing of \$15,000 on a home with a \$250,000 mortgage resulting in only \$1,500, at most, being given priority over the mortgage liens in foreclosure, with the remainder of the PACE obligation falling on future homeowners.⁹⁷ Again,

powers to finance improvements that serve a public purpose, such as the paving of roads, sidewalk improvements, and the undergrounding of utilities.").

94. Complaint at *2, *California ex rel. Brown v. Fed. Hous. Fin. Agency*, 2010 WL 5300899 (2010) (No. C10-03-084).

95. Complaint at 4, *Sierra Club v. Fed. Hous. Fin. Agency*, (N.D. Cal. July 29, 2010) (No. CV 10 3317), 2010 WL 3141131; Complaint at *2, *California ex rel. Brown v. Fed. Hous. Fin. Agency*, 2010 WL 5300899 (2010) (No. C10-03-084).

96. Letter from Ken Alex, Cal. Senior Assistant Attorney Gen., to Edward DeMarco, Acting Dir., Fed. Hous. Fin. Agency 1 (June 22, 2010), available at http://www.mpowerplacer.org/forms/L%20AG%20DeMarco%20Letter%206_21_10.pdf.

97. *Id.* at 3 (concluding that there is minimal risk associated with PACE liens that are averaged over a mortgage portfolio).

the argument here fails to account for the reality of residential mortgage financing; in this case, the reality of foreclosing on a residential mortgage loan. The amount the foreclosing lender will recoup on the defaulted loan is measured by its net recovery from the eventual sale of the property.⁹⁸ Depending on the state and the market conditions, a foreclosed property will either be sold to the highest bidder at the foreclosure sale or the foreclosing lender will assume ownership and re-sell the property.⁹⁹

In either case, the potential buyer of the property will be faced with bidding on a home burdened by the remaining PACE obligation. A rational and informed buyer will take this into account when negotiating or bidding on the price of the home. Accordingly, the value recouped by the lender in foreclosure will likely be reduced by this amount. As with the sale of the property by a PACE homeowner, the impact on lenders does not disappear simply because the PACE obligation exists in the form of a liability for future tax payments rather than a current lien on the property.

C. Pending Federal Legislation Has Also Been Introduced as a Means of Preserving PACE Programs

In addition to initiating litigation, PACE advocates are lobbying for the passage of federal legislation as a means of rebuilding PACE programs. A bill introduced in Congress known as “The PACE Assessment Protection Act” would resolve the conflict between PACE programs by requiring that the underwriting standards used by the GSEs acquiesce in all respects to PACE program assessments that comply with the guidelines issued by the Department of Energy (DOE).¹⁰⁰ The

98. NELSON & WHITMAN, *supra* note 56, §1.1.

99. Thomas W. Mitchell et al., *Forced Sale Risk: Class, Race, and the “Double Discount,”* 37 FLA. ST. U. L. REV. 589, 601–07 (2010).

100. The proposed legislation was introduced in 2010 but was not enacted by the 111th Congress. PACE Assessment Protection Act of 2010, H.R. 5766, 111th Cong. (2d Sess. 2010). The bill has been re-introduced in the 112th Congress. PACE Assessment Protection Act of 2011, H.R. 2599, 112th Cong. (2011). Prohibiting the GSEs from considering PACE in their underwriting standards does not prevent individual mortgage lenders from achieving the same result by requiring PACE homeowners to pay off the assessment when the homeowners refinance or by requiring buyers of such homes to pay off the PACE financing as a condition of purchase financing. It is possible, however, that the GSE standards would become the market standard. Future legislation could prevent individual lenders from imposing such requirements on financing.

DOE guidelines include some rudimentary underwriting requirements, limit the size of PACE assessments to ten percent of property value, permit funding only if the projected value of the energy investment exceeds the financed cost of the investment, and create various measures designed to protect against fraud and ensure program administration.¹⁰¹ Specifically, the legislation would require that the GSEs not include the PACE obligation in determining whether a loan can be made and also not to make pay-off of PACE financing a condition of either a refinancing or purchase loan.¹⁰²

The argument for this or similar legislation rests on the advantages of PACE as a means of promoting residential alternative energy investment and energy efficiency improvements. So the discussion returns to the alleged unique advantages of PACE as a financing mechanism.¹⁰³ Part II of this Article considered and rejected the notion that PACE financing offers risk-free transfers of the financing obligation. Part IV examines the two other purported benefits of PACE financing.

IV. PACE LIKELY WILL NOT SUBSTANTIALLY IMPROVE FINANCING COST OR AVAILABILITY

PACE programs have promised to lower loan costs and broaden availability. Both of these purported advantages rely on PACE assessments assuming priority over prior liens on the property. Section A of this Part analyzes the claim that PACE will lower financing costs. Existing PACE programs have higher costs than comparable loans, and this situation may not substantially change for bond-financed programs. Even if PACE does achieve lower costs, it likely will just mean a shifting of that burden to mortgage loan financing generally. Section B addresses the claim of PACE advocates that this

101. U.S. DEPT OF ENERGY, GUIDELINES FOR PILOT PACE FINANCING PROGRAMS 3-4 (May 7, 2010), *available at* http://www1.eere.energy.gov/wip/pdfs/arra_guidelines_for_pilot_pace_programs.pdf.

102. PACE Assessment Protection Act of 2010, H.R. 5766, 111th Cong. § 2(a) (2d Sess. 2010). The legislation also requires that the Fannie and Freddie underwriting standards provide that “in the event that a tax or assessment under a PACE program is delinquent, only the unpaid delinquent amount along with applicable penalties, interest and costs will be subject to foreclosure and not the entire amount.” *Id.* This provision seems to be aimed at preventing the GSEs from including future PACE assessments in their default risk analysis, although the actual language of the legislation may not achieve this objective.

103. *See supra* Part II.

form of financing will be easier to obtain for homeowners than traditional mortgage loans. PACE does have the potential to broaden loan availability, but achieving that objective will impose costs on the mortgage lending market.

A. *The Cost of PACE Financing*

The White House report on PACE issued in 2009 called it “less expensive” than private financing,¹⁰⁴ and a study of the Berkeley PACE program stated that it “offers the possibility of 100% financing at a fixed, favorable interest rate over a lengthy . . . term.”¹⁰⁵ The initial PACE bond-financed programs, however, had higher costs than rates for mortgage loans. Berkeley charged homeowners 7.75% interest, Sonoma County 7%, and Boulder 6.68%.¹⁰⁶ Compared to second lien loans contemporaneously available, these costs were higher than, or at best comparable to, private financing.¹⁰⁷ Compared to a first lien refinancing loan with cash out to the homeowner for making the energy improvements, the PACE financing cost for homeowners was much higher.¹⁰⁸

The rationale for cheaper cost financing through PACE is that investors will be willing to accept a lower return from PACE bond offerings because of the added security for investors from the property tax assessment repayment method.¹⁰⁹ Arguably, if PACE programs reached a sufficient scale and established a reliable record of repayment to

104. WHITE HOUSE FRAMEWORK, *supra* note 6, at 1.

105. BOLINGER, *supra* note 61, at 3.

106. BRAAKSMA ET AL., *supra* note 9, at 10–11; *Sonoma County Energy Independence Program (SCIEP): Frequently Asked Questions*, Question 14, http://www.drivecms.com/uploads/sonomacountyenergy.org/frequently_asked_questions.pdf (last visited July 14, 2011).

107. BRAAKSMA ET AL., *supra* note 9, at 32–33 (noting that PACE rates were the same or higher than second lien loans and that the closing costs and origination fees made PACE loans significantly more expensive); BERKELEY FIRST INITIAL EVALUATION, *supra* note 54, at 3 (noting that the interest rate for the Berkeley program was “nearly twice the rate for a home equity loan”).

108. A simple rate comparison makes this point clear, as PACE program interest rates are generally around 7%, whereas first lien rates currently average below 5%. See Lynnley Browning, *A Less Costly Cash-Out*, N.Y. TIMES, Dec. 12, 2010, at RE.9 (noting an average interest rate of 4.91% for a thirty year fixed-rate conventional mortgage); see also *supra* note 107.

109. Letter from Chris Moriarty, Dir., Barclays Capital, and John Rhow, Senior Vice President, Barclays Capital, to Jeffrey Tannenbaum, Fir Tree Partners (Sept. 14, 2009), available at http://pacenow.org/documents/Pace%20letter%20sept%202009%20re%20liens%20_2_%20_2_%20-%20Barclays%20%209-14-09%20_3_.pdf.

investors, the promise of a superior lien priority might ultimately result in lower financing costs because investors have less risk of loss from default. Yet there are important limits on, and consequences of, this theoretical benefit.

It is not clear that issuance of PACE bonds could ever achieve the economies of scale available to the general residential mortgage loan market. For homeowners financing an energy improvement with a cash-out refinance loan, which will often be the case when mortgage rates are declining, the costs of the loan will be spread out over a much larger financing amount and thus will be relatively less of a burden than an additional payment obligation secured by the home. Long-term financing means investors in PACE bonds will face higher prepayment risk than lenders making first lien refinance loans.¹¹⁰ That may be one reason why some PACE programs included significant prepayment penalties, which puts the costs of prepayment risk back on the homeowner.¹¹¹

For homeowners seeking a second lien loan, the long-term possibility that PACE will provide a more efficient funding source is also questionable. The second lien home finance market is vast. Even with the sharp contraction in this market after the mortgage crisis, it accounted for about \$5 billion dollars in loans in the second quarter of 2010.¹¹² The market systems for processing and securitizing such loans are well established.¹¹³ A PACE bond program is a single-use financing system with much more limited capacity to spread its costs over the loan base.

Any future PACE cost advantage would likely raise overall mortgage financing costs. PACE priority tax lien status shifts the burden of default for the PACE financing to the existing

110. See Andrea J. Boyack, *Laudable Goals and Unintended Consequences: The Role and Control of Fannie Mae and Freddie Mac*, 60 AM. U. L. REV. 1489, 1498 (2011).

111. *SCIEP: Frequently Asked Questions*, *supra* note 106, at Question 17 (discussing program requirements that no partial prepayments be accepted, and that full prepayments of the long-term bond require a 3% prepayment penalty); Memorandum from George M. Burgess, Cnty. Manager, for Miami-Dade Cnty. Bd. of Comm'rs 5 (May 17, 2010), available at http://www.miamidade.gov/oos/library/energy_efficiency.pdf (discussing pre-payment penalties in relation to the salability of municipal bonds for a PACE program).

112. LESLIE L. PETTIJOHN, COMM'R OF THE TEX. OFFICE OF CONSUMER CREDIT, TEXAS SENATE BUSINESS AND COMMERCE HEARING 3 (2010), available at <http://www.senate.state.tx.us/75r/senate/commit/c510/handouts10/1025-item1.LesliePettijohn.ppt.pdf>.

113. NELSON & WHITMAN, *supra* note 56, § 11.3 (describing the federally-created secondary market agencies and private mortgage securitization).

mortgage lenders. The risk of loss from nonpayment falls on the lender whether the default occurs on the homeowner's taxes or on the homeowner's mortgage loan. If the PACE homeowner defaults on her taxes, the lender will be responsible for the taxes either by paying the amount of the tax deficit or purchasing the property at a tax lien foreclosure sale to protect its security interest.¹¹⁴ If the PACE homeowner defaults on the mortgage, the lender will be forced to bear the full amount of the PACE obligation in foreclosure because the buyer of the property following foreclosure will pay less for the home due to future tax obligations for the reasons discussed above.¹¹⁵ It may be that public policy should favor this shift of costs to homeowners in order to finance energy improvements, but this is a public policy trade-off that should be acknowledged and considered as a consequence of the PACE lien priority.¹¹⁶

B. Priority of Tax Liens as a Basis for Broader Loan Availability

The other purported advantage of PACE is the possibility of offering energy improvement loans to homeowners who cannot obtain financing in the private market.¹¹⁷ This claim, while likely true, comes at the cost of deteriorated credit quality for private mortgage financing, and thus reduced lending or higher financing costs in that market. Subsection 1 explains the trade-off between broader financing availability under PACE and lending risk; Subsection 2 rebuts the

114. See Grant S. Nelson, *The Foreclosure Purchase by the Equity of Redemption Holder or Other Junior Interests: When Should Principles of Fairness and Morality Trump Normal Priority Rules?*, 72 MO. L. REV. 1259, 1279–82 (2010). The lender also will bear the burden of PACE obligations due in the future because the home will be resold subject to that obligation and thus buyers will discount the price of the home accordingly. See *supra* notes 109–10 and accompanying text.

115. See *supra* notes 82–86 and accompanying text.

116. Program administration is both a cost advantage and disadvantage with PACE. On the one hand, the use of an existing billing mechanism is a cost advantage. See *Efficiency Maine: Maine PACE Frequently Asked Questions*, <http://www.efficiencymaine.com/pace/faqs> (last visited July 21, 2011) (“For many municipalities in Maine, having [a] centralized [loan] service[r] available will be the most affordable and efficient way to administer the program.”). On the other hand, promoting the PACE program and establishing separate application evaluation and billing systems in each locality is costly. See BRAAKSMA ET AL., *supra* note 9, at 31–33 (discussing the administrative costs associated with the Berkeley and Boulder PACE programs).

117. See *supra* Part I.B.2.b.

argument that energy savings from PACE-financed improvements resolve concerns regarding increased borrowing risk.

1. PACE Financing Offers a Tradeoff Between Loan Availability and Borrower Risk

Because PACE relies on the priority status of the tax lien, an investor needs far less security regarding the repayment capacity of the borrower than would a typical mortgage lender. A home worth \$200,000 encumbered only by a mortgage of \$160,000 has \$40,000 in equity. A \$25,000 second lien loan on this property could be a risky investment because the cost of default and foreclosure could exceed the \$15,000 difference between the amount of the second lien loan and the amount of equity in the home, or property values could decline. But a \$25,000 tax assessment takes priority over the first lien mortgage and thus is almost guaranteed to be recouped by the investor. In short, the investor in a PACE bond can be reasonably certain of repayment as long as there is enough value in the house in a tax forfeiture proceeding to cover the amount of PACE financing. Therefore, it is not necessary for a PACE program to have substantial underwriting of risk as would necessarily occur with a mortgage lender. A contractor working with a PACE program made this claim: "It requires \$0 down and is not based on the owner's annual income or credit."¹¹⁸

Making credit available to borrowers without regard to their ability to repay raises obvious concerns. Lending without underwriting essentially allows for non-prime and equity-based lending,¹¹⁹ which is highly disfavored after the recent mortgage crisis. Recognizing the problems inherent in real estate lending absent underwriting, many PACE programs and PACE-enabling laws address these concerns by including underwriting criteria to ensure that the homeowner has the

118. *SolarCraft Helps Sonoma County Go Green*, RENEWABLE ENERGY WORLD (Jan. 21, 2010), <http://www.renewableenergyworld.com/rea/partner/solarcraft-3088/news/article/2010/01/solarcraft-helps-sonoma-county-go-green>.

119. *FHFA Statement*, *supra* note 80, at 1 (summarizing FHFA's concern about PACE: "While the first lien position offered in most PACE programs minimizes credit risk for investors funding the programs, it alters traditional lending priorities. Underwriting for PACE programs results in collateral-based lending rather than lending based upon ability-to-pay.").

ability to repay the PACE financing.¹²⁰ The DOE guidelines suggest that PACE programs at least require that the property owner is current on taxes, has not had a recent bankruptcy, and has some equity in the property based on tax assessed value.¹²¹ Other PACE programs or PACE-enabling legislation have included more stringent loan underwriting, such as the requirement of a certain amount of monthly income in excess of monthly debt obligations or an evaluation of the homeowner's credit rating.¹²²

More underwriting of risk by PACE programs means fewer people qualify for that financing, reducing any advantage of broader loan availability. There is a direct trade-off between the claimed advantage of broadening loan availability and the stringency of PACE underwriting criteria.¹²³ To the extent that PACE programs offer loans that private lenders would not, this type of lending particularly exacerbates tensions with mortgage lenders. By making, in essence, a non-prime quality loan, PACE programs shift the burden of loan default to mortgage lenders with prior liens on properties that are more likely to default. This cost does not simply disappear from the real estate finance system.

If new legislation mandates that PACE financing continue without underwriting restrictions, mortgage lenders may still respond to this shifting of costs by further tightening underwriting criteria or raising the price of credit. Because borrowers with weak credit profiles pose the most risk of default, it would be logical to expect that borrowers who are at

120. Cf. ME. REV. STAT. ANN. Tit. 35-a, § 10155 (2010) (limiting the amount of a "PACE mortgage" to \$15,000 and requiring "debt-to-income ratios of not more than 50%"); MINN. STAT. § 216C.436 (2)(7) (2010) (requiring that borrowers "demonstrate an ability to repay"); see also U.S. DEP'T OF ENERGY, *supra* note 101, at 5–7 (giving guidance on PACE assessment underwriting best practices).

121. U. S. DEP'T OF ENERGY, *supra* note 101, at 5–7. The DOE guidelines also include the rule that the savings from the energy investment exceed the cost of the investment as a primary indicator of the homeowner's ability to pay. *Id.* at 6. Savings from the energy may be helpful for the homeowner's finances, assuming that the homeowner does not use the cost savings to consume more energy, which is a well-recognized behavior known as a rebound effect. Horace Herring, *Energy Efficiency—A Critical View*, 31 ENERGY §2.1 (2006). But it does not add much to the ability-to-pay calculus because there is no way to tie the savings from the reduced energy cost to the repayment of the PACE obligation, especially as PACE financing can extend up to twenty years.

122. See, e.g., ME. REV. STAT. ANN. Tit. 35-A, § 10155(1)(B) (2010) ("[The borrower must have a] debt-to-income ratio of not more than 50% for qualifying property that is residential property.").

123. BRAAKSMA ET AL., *supra* note 9, at 33–35 (discussing the inverse relationship between underwriting standards and financing availability).

the edge of current qualifications for mortgage loans in terms of credit score, amount of home equity, and other important loan quality indicators would be most affected by these restrictions. Although it is possible that PACE may be effective as a non-prime financing tool that increases accessibility for residential energy improvement loans, the price of this expanded lending likely would be some restriction on the availability of, or increase the price of, private mortgage financing.

2. Homeowner Savings Do Not Resolve Loan Quality Concerns

PACE advocates often respond to these concerns by stating that PACE financing provides a benefit to homeowners through energy savings that exceed the monthly cost of the loan, and thus homeowners are in a better position to make loan repayments. A “savings to investment ratio . . . greater than one” was listed as the first principle of homeowner protection in the White House Report on PACE.¹²⁴ PACE advocates argue that these savings, when combined with some evaluation of home value and secured debt to ensure that the homeowner has equity and that the investment is properly installed, are enough to rectify any problems related to making non-prime loans.¹²⁵ Even if these principles are carefully followed in each PACE financing, they do not remove the impact of non-prime PACE lending on the cost or availability of mortgage financing.

The fact that homeowners save money does not mean that they will not default on their PACE assessments or mortgage loans. Homeowners could use that money for a variety of purposes, especially when confronted with job loss or other substantial financial setbacks. Recent evidence suggests that homeowners no longer consistently favor mortgage payments when faced with choices among various debts.¹²⁶

124. WHITE HOUSE FRAMEWORK, *supra* note 6, at 4.

125. See Pete Atkin & Corey Glick, *How PACE Affects the Future Financing of Energy-Saving Projects*, GREENER BUILDINGS BLOG, at 2–3 (Oct. 14, 2010) [hereinafter Atkin & Glick], <http://www.greenbiz.com/blog/2010/10/14/how-pace-affects-future-financing-energy-saving-projects?page=0%2C2>.

126. See *TransUnion Study Finds More Consumers Making Payments on Their Credit Cards Before Their Mortgages*, TRANSUNION (Feb. 3, 2010), http://newsroom.transunion.com/easyir/customrel.do?easyirid=DC2167C025A9EA04&version=live&prid=583276&releasejsp=custom_144.

Furthermore, PACE financing is long-term, often extending for fifteen to twenty years.¹²⁷ The value of the investment in increasing borrower disposable income through monthly savings from energy improvements has to be measured accordingly. Alternative energy investments, in particular, occur in an environment of rapid technological change that means costs of a solar PV system may be in long-term decline.¹²⁸ A solar PV system that costs \$12,000 today may, in ten years or less, cost \$3,000, be a quarter of the size, and produce three times the electricity. Today's economically beneficial investment may look like a MS-DOS computer on the roof in 2019.

V. GOVERNMENT ORGANIZATION OF THE MARKET AS AN IMPORTANT LESSON

After careful analysis, the case for the promoted advantages of PACE programs is not compelling. Yet there is evidence that the pilot PACE programs resulted in homeowner investment in alternative energy systems.¹²⁹ Information from the Berkeley PACE program suggests that the program was responsible for this increased investment in solar energy.¹³⁰ This Part argues that PACE may have increased investment in alternative energy for reasons unrelated to the financing aspect of the PACE model.

One of the most striking findings of the initial report on the Berkeley project was the large number of homeowners who registered with the program but then dropped out to pursue their energy improvement investments with private financing, presumably because it was less expensive. Of forty homeowners who signed up in a first-come, first-served application process, twenty-seven homeowners withdrew from the program.¹³¹ The high interest rate was the primary reason for homeowner withdrawals.¹³² However, 85% of homeowners that withdrew from the PACE program, and some on the

127. See BRAAKSMA ET AL., *supra* note 9, at 10.

128. See generally Joel B. Eisen, *China's Renewable Energy Law: A Platform for Green Leadership*, 35 WM. & MARY ENVTL. L. & POL'Y REV. 1, 15–16 (Fall 2010) (discussing China's massive investment in solar energy and falling solar costs).

129. BERKELEY FIRST INITIAL EVALUATION, *supra* note 54, at 2.

130. *Id.*

131. *Id.* at 7.

132. *Id.* at 2.

waiting list, still installed solar PV or planned to do so.¹³³ The homeowners surveyed credited PACE with their decision to invest in solar power, although they ultimately sought financing elsewhere.¹³⁴

This finding points to the critical function served by PACE in organizing the market for energy improvement investments. Homeowners showed an increased willingness to make energy improvements when the local government solicited them to participate in an arranged and publicly sanctioned program.¹³⁵ This market organization benefit may exist independent of the PACE financing model. Local governments may be able to achieve similar results by offering packages of terms and prices for private financing, contractor services, and the like.¹³⁶ It is worth exploring whether the benefit that PACE offered was from financing rather than the assurance or encouragement that came with a government-sanctioned offer for energy investments.

Even if government encouragement of energy investments is more important than making financing available, an advantage of PACE from the perspective of local governments is that the costs of organizing a PACE program can be recouped by increasing the rate homeowners pay for financing or adding fees in the financing process.¹³⁷ It takes funding to run such a program, especially one that actually offers homeowners a package of services. The cost of these charges can be significant and were an important reason the cost of PACE financing was not competitive with private financing.¹³⁸ A non-PACE alternative energy program may have fewer ongoing expenses because the local government would not need to be involved in, or pay a third party for, the costs of loan processing, evaluation, and funding.

Nonetheless, such programs would cost money. The same PACE financing premium could be gained through a direct fee

133. *Id.*

134. *Id.* (“Over 50% of the participants would have not installed solar without B1 financing, and none of the applicants would have installed solar without prior exposure to the B1 program.”).

135. *Id.* at 1–2.

136. *See, e.g.*, GREEN INSTITUTE, SOLAR PIONEERS: A CASE STUDY OF THE SOUTHEAST COMO NEIGHBORHOOD SOLAR THERMAL PROJECT, 4, 15 (Dec. 2007), http://www.state.mn.us/mn/externalDocs/Commerce/Solar_Pioneers_Case_Study_032509032259_SolarPioneers.pdf.

137. BRAAKSMA ET AL., *supra* note 9, at 11–12.

138. *Id.* at 31–33.

imposed by local governments to participate in the program. Alternatively, the fee could be imposed through an additional charge paid with each private financing or with each installation through a contractor. PACE did not solve the funding problem for local government; it just shifted the cost to the financing.¹³⁹ Local governments have the potential to recoup such costs through other means.

One could argue that including the charges in PACE financing essentially hid these charges from homeowners more effectively than a direct fee. Transparency in costs and funding, along with accurate disclosure and promotion of the consequences of a PACE lien, should be a principle for developing sustainable residential energy investment programs.

VI. SMALL LOAN PROPERTY TAX ASSESSED FINANCING PROGRAM

In addition to filing lawsuits and seeking federal legislation to preserve PACE programs, governments and advocates have sought to adapt the PACE concept to meet the constraints imposed by federal regulators. A possibility for reviving a residential PACE program is to simply accede to lender demands on the lien priority and structure a PACE program in which PACE financing obligations are subordinated to prior liens.¹⁴⁰ Numerous governments have turned their attention away from residential energy improvements and launched PACE programs that finance energy investments by commercial entities.¹⁴¹

139. *Id.*

140. Because the transferability of the property tax obligation is not much of a real advantage given negotiations with real estate purchases, this would limit the benefit of PACE as a financing program to the operating efficiency gained from using an existing billing mechanism—a real but very modest advantage when compared to the second lien private mortgage lending market. Lien priority creates the advantage for investors, so this type of PACE program probably would not work with bond-financing. See Boyack *supra* note 110. This option might have an appeal for a local government looking to invest reserve funds in an energy improvement loan program and needing a repayment mechanism. It is not different than simply using the local government's refuse bill or the like for repayment collection.

141. CLINTON CLIMATE INITIATIVE ET AL., POLICY BRIEF: PROPERTY ASSESSED CLEAN ENERGY (PACE) FINANCING: UPDATE ON COMMERCIAL PROGRAMS 2 (2011), http://pacenow.org/blog/wp-content/uploads/Commercial_PACE_Policy_Brief-032311.pdf (stating that commercial PACE programs are in operation in four communities, in the design phase in nine communities, and in the preliminary

This Part suggests another alternative—a small loan PACE program. A small loan program might end the costly and probably futile dispute with federal housing regulators. The reason to consider such a PACE program is that it maximizes operating efficiency from “on bill financing”¹⁴² and efficient default enforcement with tax liens, which are two PACE advantages often ignored by PACE advocates.

PACE programs could establish a low limit on the amount of loans, perhaps \$4,000 or less, in exchange for acceptance of the traditional property tax lien priority by the federal housing regulators. The federal housing agencies expressed concern about the size of PACE financing obligations, which often exceeds the value of the typical property tax special assessment.¹⁴³ The mortgage lending industry could effectively price the consequence from such priority lien financing and might be willing to accept the limited impact on loan risk because of the low dollar amount. Alternatively, federal legislators might be more willing to mandate a modest, and thus less risky, program.

A PACE program with loan terms of ten years or less also might be more acceptable to the lending industry or legislators and would be possible with small loans. Federal housing regulators have noted the “duration” of PACE financing as a concern.¹⁴⁴ The longer loan terms offered by PACE programs helped to finance large investments, like solar PV or geothermal systems, by lowering monthly payments to a level that would be offset by expected monthly benefits from the energy saved or produced. A small loan program investing in efficiency upgrades that are less costly and with more payback would not need to have extended loan terms to achieve a positive cash flow.

planning phase in four communities); *see also* Mich. Comp. Laws Ann. § 460.933 (2010) (limiting PACE program to commercial property); World Business Council for Sustainable Development, US BCSD Explores Options for PACE Funding (Jan. 12, 2011), <http://www.wbcd.org/plugins/DocSearch/details.asp?DocTypeId=1&ObjectId=MzkyMzc&URLBack=result.asp%3FDocTypeId%3D-1%26SortOrder%3D%26CurPage%3D1>.

142. *See infra* note 146–48 and accompanying text.

143. *FHFA Statement*, *supra* note 80, at 1 (“First liens established by PACE loans are unlike routine tax assessments and pose unusual and difficult risk management challenges for lenders, servicers and mortgage securities investors. The size and duration of PACE loans exceed typical local tax programs and do not have the traditional community benefits associated with taxing initiatives.”).

144. *Id.*

So why bother resurrecting PACE if it cannot deliver the promoted advantages? PACE programs sought to exploit two types of advantages from property tax assessment: the transferability of the obligation and lien priority.¹⁴⁵ PACE programs, however, also offer administrative benefits. An advantage of using property tax assessment not usually discussed by PACE advocates is the efficiency for program administration that results from using an existing mechanism for financing repayment. This practice is sometimes referred to as on bill financing.¹⁴⁶ Property tax bills are issued periodically and payments are collected periodically whether or not the local government assesses a charge for PACE.¹⁴⁷ A related advantage is that property tax assessments provide an established mechanism for default enforcement.¹⁴⁸ Similarly, the administrative apparatus to enforce property tax payments already exists, whether or not the local government assesses energy loan charges as part of the tax.

A small loan program is well positioned to take maximum advantage of these efficiencies. While saving on billing or lien enforcement costs is relatively less important when the average loan size is \$25,000,¹⁴⁹ having efficient mechanisms for these

145. See *supra* Parts I.B.2.b, II.B.3.

146. Leanne Tobias, *Practicing Law Institute, Financing Innovations Supporting Green Building Retrofits: ESCOs, Chauffage, MESA and "On Bill" Financing*, in REAL ESTATE LAW AND PRACTICE COURSE HANDBOOK SERIES, 423, 428–29 (2010); see also Atkin & Glick, *supra* note 125, at 1 (“Municipal and City governments are where the rubber meets the road with regard to PACE as the mechanism at the heart of the financing scheme is a special assessment tax linked to the property tax system—a local government jurisdiction.”); *Q & A from the November 18th PACE Financing Webinar*, U.S. DEPT OF ENERGY, 4 (last visited July 21, 2010), http://www1.eere.energy.gov/wip/solutioncenter/pdfs/PACE_webinar_QA_111809.pdf (“If the work is done through an ‘improvement district’ such as waste collection and there is an existing billing system, the charge can be levied on a monthly basis as a ‘benefit assessment.’ However, most programs thus far bill on the annual and bi-annual property tax bill.”).

147. See *supra* Part II.B.2.

148. In addition to operating efficiency, it is conceivable that on billing financing offers the advantage to homeowners of salience in presenting the energy improvements. A homeowner may be better able to highlight the improvement to the home from the investment in alternative energy production or energy efficiency if she has a debt obligation tied directly to the energy investment.

149. For the entirely solar PV Berkeley PACE program, the average loan size was about \$25,888. BERKELEY FIRST INITIAL EVALUATION, *supra* note 54, at 5–6; see also Jeffrey Tomich, *PACE Energy-Efficiency Loan Program Stirs Concerns*, STLTODAY.COM (July 18, 2010), http://www.stltoday.com/business/article_a36de206-7269-5a0b-b28c-ab690bd6e0bc.html (“80% of PACE loans in Missouri will be used to finance energy efficiency projects averaging about \$5,000. The rest will also incorporate renewable energy systems such as solar panels with those

tasks is important with a small loan amount. Fixed administrative costs consume a higher percentage of the loan repayment amount with a very small loan and thus are relatively more important. A small loan program would be impractical with private second lien financing because the relative costs of servicing the loan probably would make it too costly.

The value of the lien priority in permitting broader loan availability through reduced underwriting might also make more sense in the context of small loans. Smaller loans reduce the repayment burden on the homeowner and thus may be less likely to trigger tax forfeiture. Smaller risk assumption by mortgage lenders with reduced sized PACE financing would limit the impact on overall mortgage lending criteria or costs charged to borrowers. Conversely, eliminating the need to extensively underwrite the loan would be consistent with reducing the fixed costs of the loan, which include the costs of reviewing underwriting data in the loan origination process. As with saving on the fixed cost of billing the loan, reducing fixed loan origination costs is much more important when the loan amount is small and costs can quickly exceed a reasonable percentage of the loan.¹⁵⁰

A small loan PACE program might be especially effective if it could be quickly broadened to reach more people by combining it with a series of other highly targeted government mandates and services. A government unit, whether state or local, could identify a single improvement or a narrow list of less expensive but high-impact energy improvements that all homeowners would be expected to undertake. Homeowners needing financing for this single improvement could utilize the small loan PACE program. If further combined with a renewable energy credit or subsidy from a utility, government incentives, or a publicly organized purchase of contractor services, the result could be a program that is cost-effective at promoting investment in the selected energy improvement.

For example, perhaps a PACE program could focus solely on replacing low-efficiency home heating and cooling equipment with energy-saving equipment. The local government could offer the maximum PACE small loan financing, such as the proposed \$4,000 limit. Many

projects averaging about \$25,000. Statewide, the average PACE loan would be about \$9,000.”).

150. See BRAAKSMA ET AL., *supra* note 9, at 32–33.

homeowners could replace a single heating system if this financing were available.¹⁵¹ The PACE program could be combined with a system charge to all utility customers to generate money for a partial rebate of the cost.¹⁵² The local government could arrange purchases of the equipment at a discount based on the volume generated by the program.¹⁵³

This type of PACE program might not have the transformative power originally envisioned for the program, but it could serve as a base to collect data and further evaluate the PACE model in practice. In any case, small steps may be all that is possible in the current environment.

CONCLUSION

PACE burst onto the scene in 2008 as a solution to fundamental problems in financing residential alternative energy investments, and it rapidly gathered momentum throughout the United States. It promised cost-free transfer of loan obligations, increased access to financing, and lowered costs. The objective of PACE programs to contribute to the transition to a clean energy economy is more than laudable; it is essential to our survival as a civilized society. The United States, as the world's largest per capita energy consumer,¹⁵⁴ bears special responsibility to commit to the transition to a

151. Energy Info. Admin., *Reducing Home Heating and Fueling Costs*, U.S. DEPT OF ENERGY, at 13–14 (July 1994), <ftp://ftp.eia.doe.gov/service/emeu9401.pdf> (estimating average heating system cost as \$2,500 for oil-burning system and \$2,800 for natural gas burning system).

152. Steven Ferrey et al., *Fire and Ice: World Renewable Energy and Carbon Control Mechanisms Confront Constitutional Barriers*, 20 DUKE ENVTL. L. & POL'Y F. 125, 136 (2010) (“A system benefits charge (SBC) is a tax on utility consumption, or a surcharge mechanism, for collecting funds from electric consumers, the proceeds of which then support a range of energy activities[, including] demand-side management programs[] or renewable resources . . . from electricity consumers.”).

153. If a local or state government had the popular support to enact a mandate that all homes with the least efficient heating/cooling systems replace their heating systems, a less likely proposition, the impact of PACE financing with a mandate could be especially substantial. For homeowners with larger units, combined heating and cooling systems, or other needs, the financing would have to be supplemented. This could be done by up-front payments from the homeowner, public subsidies, or even a secondary PACE loan that is subordinated to prior mortgage liens.

154. Andrea M. Guttridge, *Redefining Residential Real Estate Disclosure: Why Energy Consumption Should Be Disclosed Prior to the Sale of Residential Real Property*, 37 RUTGERS L. REC. 164, 173 (2010).

sustainable economy. Yet promising homeowners benefits that cannot be delivered will not achieve this purpose.

The suspension of PACE programs has led to litigation and proposed federal legislation to restore the PACE model. This Article argues that federal legislation mandating lender acquiescence in the current model of PACE financing is not justified. None of the advantages envisioned by PACE programs are likely to occur in the actual operation of the real estate market, or will happen only at corresponding costs to mortgage lending generally, if forced by statutory mandate.

Regardless of whether PACE advocates prevail in either litigation or in enacting legislation that would restore the growth in PACE programs, there are important lessons to be learned from this creative attempt at energy financing. A comprehensive government program to promote alternative energy systems may serve the critical function of helping to organize the market for energy investment and instill confidence in homeowners considering an investment. There also may be more targeted forms of PACE that could take advantage of the lien priority from property tax assessment without engendering the same degree of disruption in the residential mortgage finance market.