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“ON-SITE RENEWABLE ENERGY AND PUBLIC FINANCE: HOW AND WHY MUNICIPAL BOND FINANCING IS THE KEY TO PROPAGATING ACCESS TO ON-SITE RENEWABLE ENERGY AND ENERGY EFFICIENCY”

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Abstract

Notwithstanding the expansion of financing options for on-site renewable energy and energy efficiency improvements, in the United States there remain systemic obstacles to more widespread access to financing. Chief among these are the relatively constrained legal and financial lending parameters inherent in private sector equity-based financing. Private sector equity financing tends to remain available primarily to high net worth or high income homeowners. Glaring in its absence is the inability of low income homeowners to access lending through the credit markets to finance renewable energy and energy efficiency projects.

This Article surveys and explains the financing options available, including traditional home equity loans, third party power purchase agreements, and municipal bond financed special assessment districts, and assesses their legal advantages and disadvantages. This article concludes that municipal bond financing is best structured and positioned to offer maximum access to financing for renewable energy and energy efficiency projects. Specifically, property assessed clean energy programs, which utilize specially geared special assessment districts called energy financing

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districts, hold the potential to address inequitable distribution of renewable energy and energy efficiency access.

I. INTRODUCTION

Special tax districts and municipal bond financing are not inherently sexy cocktail party topics. Nevertheless, these obscure and complex systems that leverage public capital to finance public works projects are expanding at a rapid clip into the space of on-site renewable energy project finance. Consumers' energy choices are growing as alternative forms of distributed generation become more cost-competitive. This Article seeks to demonstrate that municipal bond financing for on-site renewable energy and energy efficiency ("RE/EE") projects is uniquely structured and positioned to provide the most equitable access to communities of varied collective means.

II. RENEWABLE ENERGY AND RESIDENTIAL PROJECT FINANCING – PRESENTING THE ISSUE OF EQUAL ACCESS

Traditionally, most electricity consumers have a fairly opaque relationship with both the source of generation as well as the system that delivers energy. Obfuscated by systemically complex utility monopolies, the energy generation and delivery apparatus in the United States is heavily regulated. The enormous capital costs associated with increasing generation, transmission, and distribution delivery capacity is shrouded by a regulatory process that parses these billion-dollar numbers into digestible line-item fees on a customer's utility bill.

A new market for distributed energy generation is emerging to site customer-based load capacity in proximity to where the electricity is being consumed. This Article refers to the siting of such RE/EE projects in close proximity to customer load or demand as "on-site." Collectively, these on-site electricity-generating facilities are known as distributed generation.¹ Often most visible among the options for on-site electricity generation, solar photovoltaic ("solar PV") installations recall images of shimmering, high technology rooftops that feed electricity into a direct current-to-alternating current inverter, which supplies electricity into the distribution grid when the sun is shining. Until recently, mainstream homeowners disfavored solar PV and other RE/EE improvements because of the relatively

1. GREGORY W. MASSEY, ESSENTIALS OF DISTRIBUTED GENERATION SYSTEMS 2 (2010).

high up-front cost associated with their installation. Nevertheless, in the last three to five years, the average customer has gained many financing options that defray much of the up-front cost of RE/EE systems.²

The space of on-site RE/EE finance is growing. In the private sector, traditional mortgage lenders and banks offer home equity loans; some generic and others specialized for RE/EE projects. Legislation in several solar PV markets has opened up the market to residential third-party system ownership. Pools of private equity finance the commissioning of systems through a simplified power purchase agreement and system lease. These residential third-party owned system structures are relatively new in most markets except California and vie for a relatively narrow sliver of the incentives available for RE/EE. Many offer no or low up-front cost, thus addressing one of the chief barriers to access. Nevertheless, public sector municipal bond-financed programs, pioneered in the City of Berkeley, offer yet another option for those seeking to make RE/EE improvements on their property.

Notwithstanding the expansion of financing options, there remain systemic obstacles to more widespread access to financing for RE/EE home improvements. Chief among these obstacles are the relatively constrained legal and financial lending parameters inherent in private sector equity-based financing. Private sector equity financing tends to remain available primarily to high net worth or high-income homeowners. These homeowners leverage their home as collateral for a loan that is used to finance RE/EE projects. For average homeowners, access to sufficient equity to obtain such a loan is limited. Further, as credit markets have contracted and the housing market in the United States has declined, most average homeowners lack adequate equity in their home to access financing. Glaring in the absence of financing is the inability of low-income homeowners to access lending through the credit markets to finance RE/EE projects. Thus, the RE/EE movement remains largely stigmatized as an elite technology.

2. Often, after one finds a suitable financing solution for the capital cost of a RE/EE project, a customer's monthly utility expenses decline precipitously as their consumption of utility-based electricity declines. Many customers merely pay compulsory utility service and connection fees. In a purely financial sense, the cost of RE/EE projects can be thought of as bundling and pre-paying electricity load costs. There are also many utility rebates, as well as federal, state and local tax benefits that inure to RE/EE projects, which are beyond the scope of this Article.

This Article will argue that municipal bond financing is best structured and positioned to offer maximum access to financing for RE/EE projects. Positing the environmental, energy and economic benefits of on-site renewable energy systems, this Article will survey and explain the myriad financing options available and will objectively assess their legal advantages and disadvantages. Further positing that there is a systemic barrier to widespread access to RE/EE, this Article will argue that private sector RE/EE project finance exacerbates this systemic disparity in access. Next, this Article will discuss the legal foundation and history of special assessment districts (“SADs”) and municipal bond finance for public benefit projects. Then, this Article will briefly trace this lineage to the expanding progeny of Berkeley’s Financing Initiatives for Renewable and Solar Technologies (“FIRST”) and will make normative recommendations for expanding property assessed clean energy (“PACE”) programs to include environmental justice (“EJ”) communities. This Article will conclude that FIRST programs, modified as suggested, hold the potential to address inequitable distribution of RE/EE access.

III. WHERE WE ARE AND HOW WE GOT HERE – A CLOSER LOOK AT RESIDENTIAL FINANCING OPTIONS

A. Private Sector Financing Options – Home Equity Loans

To defray the high up-front cost of residential solar PV systems, traditional home equity loans and their progeny, “green loans,” provide a ready source of financing for those with good enough credit to qualify. A home equity loan, sometimes referred to as a home equity line of credit, is a line of credit extended to a homeowner using equity in the home as collateral.³ Equity is the difference between the fair market value of the home and the outstanding balances of all the loans and other liens on the house.⁴ There are two types of home equity loans, a closed-end home equity loan and an open-end home equity loan.⁵ While a closed-end home equity loan is for a fixed amount of money where additional money cannot be borrowed, an open-end home equity loan has a credit line set by the lender where

3. BLACK’S LAW DICTIONARY 1020 (9th ed. 2009).

4. U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, SHOPPING FOR YOUR HOME LOAN: HUD’S SETTLEMENT COST BOOKLET 31, <http://portal.hud.gov/portal/page/portal/HUD> (search “Shopping for Your Home Loan: HUD’s Settlement Cost Booklet”; then follow “Settlement Costs Booklet” hyperlink).

5. *Id.* at 32.

the borrower can decide how much and when to borrow against the line.⁶

The most common uses of home equity loans are for home improvements, consolidating debt from credit cards, and paying student loans or unexpected medical bills.⁷ Although these may be the typical uses for home equity loans, the use of home equity loans is likely to expand to financing RE/EE improvements for homes as new, clean, cost-saving technologies emerge. While home equity loans provide homeowners the ability to use the equity in their home as collateral, homeowners need to consider the risks involved. The risks involved in obtaining a home equity loan are the attachment of another lien on the home, the reduction of the equity built up in the home, and the possibility of losing the home if the borrower defaults on the loan.⁸

The risks involved in home equity loans also extend to the lenders. If a borrower defaults on his or her mortgage payments, the lender on the home's mortgage has seniority, and the subsequent lender of the home equity loan is junior, in collecting debts owed.⁹ During this recession, banks have been hit hard by the rise in default rates on home equity loans.¹⁰ This rise in default rates can be attributed to depreciating home prices.¹¹ In approaching this situation, some lenders are choosing to walk away from delinquent home equity loans while others are reducing home equity lines of credit to borrowers who are still making payments.¹² Continuing to work with the borrower—rather than walking away—can be easier if the same lender issues both loans.¹³ When the same lender has not issued the loans, senior lenders do not tend to be interested in striking a deal until the borrower has a deal in place with the junior lender.¹⁴ Therefore, junior lenders are the ones impacted most by the rise in

6. *Id.*

7. *Id.*

8. *Id.*

9. Ian Ayres & Barry Nalebuff, *A Market Test for Credit Cards*, FORBES, July 13, 2009, available at <http://www.forbes.com/forbes/2009/0713/opinions-market-credit-cards-why-not.html>.

10. Riley McDermid, *Home Equity Emerges as Trouble Spot for Banks*, WALL ST. J. MARKET WATCH, Jan. 16, 2008, <http://www.marketwatch.com/story/home-equity-emerges-as-real-trouble-spot-for-banks>.

11. *Id.*

12. Ruth Simon, *Lenders Rethink Home-Equity Loans*, WALL ST. J., Jan. 16, 2008, at D1, available at <http://online.wsj.com/article/SB120044716100193017.html>.

13. *Id.*

14. *Id.*

default rates because senior lenders have priority in settling their loans.

As a remedy to defaulting on the loan, the lender with seniority has priority to the borrower's cash or home, leaving the junior lender to battle for what, if anything, is left.¹⁵ Recent developments show that lenders holding a first mortgage foreclose on and then sell the borrower's house to recoup their money, but that the house sells for less than the value of the mortgage.¹⁶ This loss in value results in a short sale that can leave the lenders of the home equity loan with little or nothing at all.¹⁷ As a result, some lenders who hold home equity loans are opposing short sales or coming to understandings with senior lenders for a certain percentage of a debt in return for agreeing to the short sale.¹⁸ According to the 2007 American Housing Survey, there are over four million home equity loans in the U.S.¹⁹ Rising defaults result in lenders being more cautious in providing home equity loans, which will impact a homeowner's ability to use a home equity loan to finance RE/EE improvements.

As interest in solar energy systems grows, the high up-front cost of installing the system will continue to be an issue. This need has given rise to home equity loans specifically for financing solar energy systems. Some examples include Solar Home Equity Loans or a line of credit from New Resource Bank and SunPower, who teamed up to offer these solar financing options to residents in California.²⁰ Other financial institutions, such as Wainwright Bank & Trust and AFC First Financial Corp., have created the same type of home equity loans to purchase solar energy, or "green loans."²¹ Solar home equity loans differ slightly from traditional home equity loans. Solar Home Equity Loans offered by New Resource Bank, for example, allow homeowners to take advantage of government rebates for RE/EE improvements, pay less on their utilities due to installation of the solar PV system, and generate clean energy.²² Wainwright Bank's Green

15. Vikas Bajaj, *Equity Loans as Next Round in Credit Crisis*, N.Y. TIMES, Mar. 27, 2008, available at <http://www.nytimes.com/2008/03/27/business/27loan.html>.

16. *Id.*

17. *Id.*

18. *Id.*

19. U.S. CENSUS BUREAU, AMERICAN HOUSING SURVEY FOR THE UNITED STATES tbl.3-15 (2007), available at <http://www.census.gov/hhes/www/housing/ahs/ahs07/tab3-15.pdf>.

20. Stephanie I. Cohen, *Banks, Manufacturers Offer New Ways to Finance Solar*, WALL ST. J. MARKET WATCH, Feb. 8, 2007, <http://www.marketwatch.com/story/banks-manufacturers-offer-financing-for-residential-solar>.

21. *Id.*

22. New Resource Bank: Solar Home Equity Financing,

LoanTM offers a reduced rate home equity loan for solar PV installation, has minimum and maximum loan amounts, and provides the option of three different term lengths.²³ On the other hand, Wainwright Bank's traditional home equity loans have a set minimum and a maximum loan amount of 75% of the appraised value of the home.²⁴ Wainwright Bank's creation of the Green LoanTM as a subset of home equity loans was in response to the energy crisis in California in 2001.²⁵ More and more financial institutions are providing funding sources for solar PV systems in response to consumers' increasing interest in the installation of such systems.

Other financing mechanisms similar to home equity loans that have developed with the popularity of solar energy systems are energy efficient mortgage loans such as the ENERGY STAR[®] mortgage.²⁶ The cost of installing solar energy equipment can be incorporated into the mortgage when homeowners secure a mortgage or refinance their mortgage if the lender buys into the program.²⁷ An ENERGY STAR[®] mortgage has several benefits, including the ability to pay for the investment over the life of the mortgage (typically fifteen or thirty years), low monthly payments, less stringent equity requirements, matching public funds, and the ability to deduct the interest from the homeowner's federal and state income taxes.²⁸ This allows homeowners to finance their energy efficiency improvements without paying more for financing than they would for a typical mortgage.²⁹

<https://www.newresourcebank.com/personal-overview/solar-home-equity-financing/> (last visited May 13, 2010).

23. Wainwright Bank, Green LoanTM, <http://www.wainwrightbank.com/html/personal/loans/green.html> (last visited May 13, 2010).

24. Wainwright Bank, Home Equity Loan, http://www.wainwrightbank.com/html/personal/loans/equity_loan.html (last visited May 13, 2010).

25. Wainwright Bank, Press Releases 2001, <http://www.wainwrightbank.com/html/about/news/news/articles/2001/010221.html> (last visited May 13, 2010).

26. MATTHEW H. BROWN & BETH CONOVER, SOUTHWEST ENERGY EFFICIENCY PROJECT, RECENT INNOVATIONS IN FINANCING FOR CLEAN ENERGY 14 (2009), *available at* http://www.swenergy.org/publications/documents/Recent_Innovations_in_Financing_for_Clean_Energy.pdf.

27. *Id.*

28. *Id.*

29. U.S. Department of Energy, Energy Star, "What is an Energy Efficient Mortgage?," http://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.energy_efficient_mortgage (last visited May 13, 2010).

While the home equity loan industry continues to adapt to meet the increasing demand for financing RE/EE improvements, the recent economic downturn has illuminated some of the inherent risk of this mechanism. As credit becomes increasingly critical in securing home equity loans, opportunities for alternative financing schemes will continue to grow.

B. Private Sector Financing Options – Solar PV Leases

Homeowners traditionally financed solar PV systems using home equity loans; however, new forms of financing are appearing to alleviate the high up-front costs associated with solar PV systems. These new forms of financing include third-party owned solar PV leases and third-party solar power purchase agreements (“PPAs”).³⁰ While home equity loans may have been a reliable financing choice in the past, in the current financial environment, home equity loans are more difficult to obtain, the interest rates may be incredibly high, and the equity in many homes has decreased, impacting the amount of the loan.³¹ Therefore, new forms of financing, such as third-party owned solar PV leases and third-party solar PPAs, provide an attractive alternative to traditional home equity loans.

In a third-party owned solar PV lease (“solar lease”), a homeowner does not purchase the PV system. Instead, the homeowner enters into a contract with a third-party company that installs a solar PV system on the homeowner’s roof and maintains ownership after installation.³² The homeowner consumes the energy produced by the leased system on their roof, paying for it through set monthly lease payments to the third-party company over a pre-determined period of time.³³ In some states, if the system produces excess electricity, the homeowner can get credit for the additional electricity sent to the grid.³⁴ Depending on the contract, there may be the option to buy the PV system, extend the term of the lease, or have the system removed at the end of the lease.³⁵ The solar lease may also

30. JASON COUGHLIN & KARLYNN CORY, NATIONAL RENEWABLE ENERGY LABORATORY, SOLAR PHOTOVOLTAIC FINANCING: RESIDENTIAL SECTOR DEPLOYMENT 1 (2009), available at <http://www.nrel.gov/docs/fy09osti/44853.pdf>.

31. *Id.* at 26.

32. *Id.* at 28.

33. *Id.*

34. *Id.*

35. *Id.*

include operations and maintenance of the PV system, alleviating that burden from the homeowner.³⁶

While solar leases may often present a win-win situation for the homeowner, the lessor, and the environment, there are also risks to consider. In light of the long-term nature of solar leases, homeowners must be particularly aware of the contractual terms of their agreements. Contractual details, such as default or termination terms and periodic payment increases, may take homeowners by surprise down the road. Additionally, some lessors require the PV systems be insured under the homeowner's insurance.³⁷

Currently, there are a handful of solar leasing programs, including SunRun Inc., Connecticut ("CT") Solar Lease, Florida Keys Electric Cooperative's ("FKEC") Simple Solar Program, SolarCity, and Solarflow Energy. SolarCity currently offers solar leases in California, Arizona, Colorado, Oregon, and Texas, and it plans on expanding its reach.³⁸ While several of these solar leasing companies offer services in regions with high insolation, Solarflow Energy is a Minnesota company offering solar energy leases to residents in the twin cities.³⁹ The FKEC's Simple Solar Program allows members to lease solar panels from FKEC's existing array rather than installing panels on their own homes.⁴⁰

Third-party ownership PPAs are a similar means of financing solar PV on homes. PPAs are the primary method for financing solar PV systems in the commercial and public sectors. They are also emerging in residential markets.⁴¹ In a third-party ownership PPA, the homeowner agrees to have the PV panels installed on his or her roof by the third-party who owns and maintains the panels.⁴² The homeowner then agrees to purchase the electricity generated by the system from the third-party for a set period of time.⁴³ At the end of the agreement, the homeowner has the option to renew the agreement,

36. *Id.*

37. *Id.* at 29.

38. SolarCity, Company Profile, <http://www.solarcity.com/media-center/company-profile.aspx> (last visited Apr. 22, 2010).

39. Solarflow Energy, Home, <http://solarflowenergy.com/> (last visited Apr. 22, 2010).

40. Florida Keys Electric Cooperative Association, Inc., Simple Solar: Cooperative Offers Hassle-Free Solar Energy, Program page, <http://www.fkec.com/SimpleSolar.html> (last visited Apr. 22, 2010).

41. COUGHLIN & CORY, *supra* note 30, at 31.

42. *Id.* at 32.

43. *Id.*

purchase the system, or have the system removed.⁴⁴ SunRun Inc. offers both solar leases and residential solar PPAs.⁴⁵

The largest legal issue that arises with PPAs is whether a non-utility third-party can sell energy directly to homeowners. State courts and public utilities commissions (“PUCs”) may decide for a number of reasons that such agreements are prohibited under state law or subject to PUC regulation.⁴⁶ Becoming subject to PUC regulation effectively disallows third-party PPA companies from operating, because such regulation imposes legal and financial hurdles that make conducting business unfeasible.

This issue, which is a matter of state law, is gaining momentum in a number of states as companies start looking into potential markets for homeowner-third party PPAs. Some states have decided that homeowner-third party PPAs are legal and not subject to regulation as an investor-owned utility. For example, California has a statute in place to govern the sale of solar energy to homeowners under a PPA.⁴⁷ In other states, such as Florida, courts have ruled that such PPAs are subject to PUC regulation.⁴⁸ However, in many states, the question is still very much up for debate. In Arizona, the state’s PUC, the Arizona Corporation Committee (“ACC”), is currently considering regulating solar PPAs.⁴⁹ Although the ACC issued an order regulating the sale of solar energy in a PPA between SolarCity and two Arizona school districts, there has not been a final ruling determining whether the ACC will regulate solar PPAs.⁵⁰

Solar leases and solar PPAs provide yet another potentially attractive means of financing solar PV systems for homeowners. The solar leases and solar PPAs give homeowners more flexibility than home equity loans, add value to the home rather than take equity out

44. *Id.*

45. SunRun, Inc., SunRun Power Plan, http://www.sunrunhome.com/sunrun_home_solar/sunrun_power_plan/ (last visited Apr. 22, 2010).

46. Katharine Kollins, *Solar PV Financing: Potential Legal Challenges to the Third Party PPA Model* 21-22 (Dec. 5, 2008) (unpublished, Masters of Environmental Management thesis, Nicholas School of the Environment, Duke University 21-22), available at http://dukespace.lib.duke.edu/dspace/bitstream/10161/843/1/MP_kwk5_a_200905.pdf.

47. See CAL. PUB. UTIL. CODE § 2869 (Deering 2009).

48. See *PW Ventures, Inc. v. Nichols*, 533 So.2d 281 (Fla. 1988); Kollins, *supra* note 46, at 24-25 (noting that *PW Ventures* only applies to PPAs where the sale of electricity is based on consumption).

49. Interstate Renewable Energy Council, Press Release, Arizona ACC Issues Order on Third-party Sales, (Jan. 2010), available at <http://irecusa.org/2010/01/arizona-acc-issues-order-on-third-party-sales/>.

50. *Id.*

of the home, and provide homeowners with more options when the lease or PPA term ends. For some homeowners, however, even the benefits of third-party ownership and PPAs are not reasonably obtainable due to credit, regulatory, or ownership issues.

C. Municipal and County Financing: Utilizing Special Assessment Districts ("SADs")⁵¹ to Finance RE/EE Improvements

An alternative to reducing the high up-front costs of residential solar PV installation and other RE/EE improvements via either private financing or third-party ownership is county or municipal financing. Leveraging municipal or county debt can help homeowners who would not normally be able to obtain financing while providing an environmentally beneficial investment opportunity for financial markets. Additionally, use of special taxing political subdivisions such as SADs means only those homeowners who use government financing pay for the program. Structurally, SADs spread out the capital cost of the program over the entire taxpaying community, while a municipal bond bundles and secures the loans. Recently, several local governments have begun using SADs to help property owners finance renewable energy and energy efficiency improvements on their homes.

1. Defining SADs

Normally, in order to fund services and infrastructure, municipalities and counties tax all residents on the theory that the entire community benefits from these public goods.⁵² In the case of public goods that benefit specific property owners, however, municipalities and counties may decide to tax only those who have received this special benefit.⁵³ For this, local and state governments in the United States utilize SADs as a creative means of funding local improvements to isolate the benefits and burdens of specific improvements placed upon specific community members.

A SAD is a political subdivision created to construct a proposed improvement, with no powers or liabilities except for those expressly

51. The term "special assessment districts" here includes the identical or similar types of political subdivisions, variously known as special tax districts, special improvement districts, or benefit assessment districts.

52. Donald G. Hagman & Dean J. Mischynski, *Chapter 12: Special Assessments*, in *WINDFALLS FOR WIPEOUTS: LAND VALUE CAPTURE AND COMPENSATION* 319-21 (Donald G. Hagman & Dean J. Mischynski eds., 1978).

53. *Id.* at 320-21.

or implicitly conferred by state statute.⁵⁴ SADs are designated geographical or political areas in which special levies are assessed upon properties in order to finance local improvements that directly benefit those properties that have been assessed.⁵⁵ Normally, SADs are not allowed to cross jurisdictional boundaries.⁵⁶ Although these local improvements are characterized as public in nature, they must provide specific special benefit to those properties assessed beyond a general enhancement of property value.⁵⁷ SADs typically fund improvements to roads, sidewalks, water lines, sewer lines, and many other types of services and infrastructure.⁵⁸

A related but distinct type of government agency is a special district. Special districts are limited-purpose political subdivisions that are administratively and fiscally independent from other local governments.⁵⁹ As with SADs, these districts allow for tax-exempt financing (commonly through the issuance of bonds) for the cost of public infrastructure within a discreet development area.⁶⁰ Special districts share many of the same characteristics as assessment districts, including the same focus on financing localized improvement.⁶¹ They differ, however, in that assessment districts are merely financing tools for governmental bodies (including, possibly,

54. 64 C.J.S. *Municipal Corporations* § 1193 (1999).

55. Dee P. Wisor & Kimberley K. Crawford, *Improvement Districts for Colorado Counties, Cities, and Towns*, 30 COLO. LAW. 53 (2001) (discussing Colorado special improvement districts ("SIDs") and local improvement districts ("LIDs")); ASSESSING THE BENEFITS OF BENEFIT ASSESSMENTS: A CITIZEN'S GUIDE TO BENEFIT ASSESSMENTS IN CALIFORNIA 2 (2d ed., Dec. 2004), available at <http://www.sen.ca.gov/locgov/BenefitAssessmentsPublication.pdf> (discussing California benefit assessment districts). Although property assessments are the most common means of assessment, in some cases assessment districts may also raise revenue through sales taxes. See, e.g., Wisor & Crawford, *supra*, at 53 n. 3 (citing to CRS § 30-20-604.5 (1), dealing with governments of a certain size). However, this article will confine itself to assessment districts that raise revenue only through property assessments.

56. See, e.g., COLO. REV. STAT. § 30-20-602(2) (2008) ("No district that crosses county boundaries may be formed by intergovernmental agreement or otherwise.").

57. Hagman & Mischynski, *supra* note 52, at 321-23; ASSESSING THE BENEFITS OF BENEFIT ASSESSMENTS, *supra* note 55, at 2.

58. Wisor & Crawford, *supra* note 55, at 53.

59. Barbara Coyle McCabe, *Special Districts: An Alternative to Consolidation*, in CITY-COUNTY CONSOLIDATION AND ITS ALTERNATIVES: RESHAPING THE LOCAL GOVERNMENT LANDSCAPE 131 (Jered B. Carr & Richard C. Feiock eds., 2004). School districts are not considered special districts. *Id.*

60. George M. Rowley & K. Sean Allen, *History and Overview of Special Districts*, in SPECIAL DISTRICTS IN COLORADO 3, 6 (K. Sean Allen et al. eds., 2007).

61. Sierra Business Council, Benefit Assessment Districts, <http://www.sbcouncil.org/Benefit-Assessment-Districts> (last visited Feb. 12, 2010).

special districts),⁶² and are not autonomous governments with the ability to run their own programs.⁶³ Special districts are often statutorily defined as single-purpose in nature, focusing on specific services such as fire protection, water supply, housing/community development, or drainage/flood control.⁶⁴

2. History of SADs

a. The Early Period – SADs Take Shape

Political subdivisions in the United States have used SADs and special districts to finance local improvements since colonial times.⁶⁵ Early on, the roads, harbors, bridges, and canals that connected the growing country benefited from these types of districts.⁶⁶ SADs attained their highest popularity in the early part of the 20th century, when many large cities obtained a significant portion of their revenue through these special tax districts.⁶⁷ The Great Depression saw deflated use of SADs as many landowners were unable to pay their special assessments, resulting in bond default and investor withdrawal.⁶⁸ During the New Deal Era, however, President Roosevelt and Congress encouraged and expanded the use of special districts on the national, state, and local levels to promote economic recovery.⁶⁹ The 1950s saw yet another transformation, with private entrepreneurs and local executives, rather than the federal government, eager to take advantage of the independence of special districts in order to support the post-World War II development boom.⁷⁰

b. SADs Transformed – A Targeted Approach to Taxation

In the past several decades, use of SADs, special districts, and other forms of creative local government financing has increased in

62. ASSESSING THE BENEFITS OF BENEFIT ASSESSMENTS, *supra* note 55, at 4.

63. *Id.*; Wisor & Crawford, *supra* note 55, at 53.

64. McCabe, *supra* note 59, at 132.

65. Hagman & Mischynski, *supra* note 52, at 314; McCabe, *supra* note 59, at 142.

66. McCabe, *supra* note 59, at 142; *see also* Hagman & Mischynski, *supra* note 52, at 314.

67. Hagman & Mischynski, *supra* note 52, at 314-15.

68. *Id.* at 315.

69. McCabe, *supra* note 59, at 144.

70. *Id.* at 145; KIMIA MIZANY & APRIL MANATT, WHAT'S SO SPECIAL ABOUT SPECIAL DISTRICTS: A CITIZEN'S GUIDE TO SPECIAL DISTRICTS IN CALIFORNIA 4 (3d ed. 2002), available at <http://www.rsrpd.org/public/Whatsso.pdf>.

many areas as a response to policies that restrict municipal and county spending on services and infrastructure. Two apt examples are California and Colorado. In California, the passage of Proposition 13 in 1978 cut local property tax revenue substantially without reducing the need for local services.⁷¹ As part of their response, local officials sought to implement special assessments in order to replace lost property tax revenue.⁷² Critics of special assessments argue that their use defeats the tax cuts that Proposition 13 was meant to implement.⁷³ Californians have continued to struggle with taxation issues, including the transparency of local taxation and taxpayer input into taxation decisions.⁷⁴

Colorado has had similar issues with local taxation. Limitations on taxation incurred by passage of the Taxpayer's Bill of Rights ("TABOR") induced Colorado municipalities and counties to look for means of financing local improvements without affecting general purpose funds.⁷⁵ Although TABOR requires SADs to be passed by the general public where they did not before, they are not considered a tax under TABOR and therefore avoid some of the tax-related restrictions imposed by this law.⁷⁶

3. Features of SADs – SADs Offer Unique Financing Benefits

SADs and special districts are generally financed through the issuance of bonds that are paid back through the revenue generated from the special assessments upon the properties that benefit from the improvements.⁷⁷ These tax-exempt bonds have interest rates that are normally lower than those provided by banks.⁷⁸ In cases where a bond is issued, the district's authorizing jurisdiction is not obligated for the

71. ASSESSING THE BENEFITS OF BENEFIT ASSESSMENTS, *supra* note 55, at 5.

72. *Id.*

73. *Id.*

74. *See id.* (discussing Proposition 218, the "Right to Vote on Taxes Act" of 1996).

75. Wisor & Crawford, *supra* note 55, at 53 (discussing Colorado special improvement districts ("SIDs") and local improvement districts ("LIDs")).

76. *Id.* at 54.

77. Rowley & Allen, *supra* note 60, at 6; Wisor & Crawford, *supra* note 55, at 54. However, administrative costs may drive up bond costs to make home equity loans more attractive in some cases. MERRIAN C. FULLER, CATHY KUNKEL, & DANIEL M. KAMMEN, GUIDE TO ENERGY EFFICIENCY & RENEWABLE ENERGY FINANCING DISTRICTS FOR LOCAL GOVERNMENTS 7 (Sept. 2009), available at <http://www.bouldercounty.org/bocc/cslp/guide.pdf>.

78. Janice C. Griffith, *Special Tax Districts to Finance Residential Infrastructure*, 39 URB. LAW. 959, 961 (2007).

debt.⁷⁹ The special assessments on the benefited property constitute a lien that can be foreclosed in the same way as a foreclosure for property taxes.⁸⁰ The assessment lien is superior to creditors' mortgage claims relating to home equity loans and all other liens aside from a lien for property taxes.⁸¹ Furthermore, this lien transfers with the property upon its sale.⁸² These unique financing features are important when comparing local government financing to other forms of financing.

As creatures of state law, the scope and features of SADs and special districts vary from state to state. For example, California has over 30 different SAD acts, each of which provide specific guidelines to local agencies on how to finance particular projects.⁸³ Articles XIII C and D of the California Constitution control these various acts.⁸⁴ Colorado has statutes covering special districts⁸⁵ and SADs,⁸⁶ as well as several variations that integrate aspects of both.⁸⁷

One of the most attractive features of SADs and special districts is that they allow communities to tackle the service of public goods problem in a more targeted manner while avoiding the transaction costs associated with local politics.⁸⁸ As one researcher has noted, "[s]hifting the delivery of public goods to single purpose governmental bodies occurs more frequently when the need exists to bypass limitations placed upon local fiscal powers and to fulfill unmet demands for service."⁸⁹ Thus, through SADs and special districts, local communities may address specific important needs that might otherwise be overlooked in the push and pull of larger municipal and county politics.

79. Rowley & Allen, *supra* note 60, at 6 (discussing special districts).

80. See, e.g., Wisor & Crawford, *supra* note 55, at 54 (describing Colorado assessment districts); FULLER, *supra* note 77, at 3 (discussing Energy Financing Districts ("EFDs") in particular).

81. Wisor & Crawford, *supra* note 55, at 54.

82. Griffith, *supra* note 78, at 961-62.

83. ASSESSING THE BENEFITS OF BENEFIT ASSESSMENTS, *supra* note 55, at 3.

84. *Id.*

85. Special District Act, COLO. REV. STAT. §§ 32-1-101 to -113 (2008).

86. Special improvement districts ("SIDs"), COLO. REV. STAT. §§ 31-25-501 to -542, and local improvement districts ("LIDs"), COLO. REV. STAT. §§ 30-20-601 to -628.

87. General improvement districts ("GIDs"), public improvement districts, COLO. REV. STAT. §§ 31-25-601 to -633, public improvement districts, COLO. REV. STAT. §§ 30-20-501 to -534, and business improvement districts ("BIDs"), COLO. REV. STAT. §§ 31-25-1201 to -1228.

88. McCabe, *supra* note 59, at 134-36 (discussing special districts specifically).

89. Griffith, *supra* note 78, at 959 (discussing special districts specifically).

On the other hand, the narrow focus of benefits created by special districts in particular has also been a point of criticism because of their ability to isolate wealth and segregate communities.⁹⁰ Rather than financing general-purpose government spending on public services that are spread across an entire municipality or county, tax-paying property owners are increasingly interested in ensuring that their taxes will benefit them directly.⁹¹ Additionally, special districts have also been criticized as disproportionately benefiting real estate developers and wealthy financiers, providing them with a tool to finance and control new economic development without input from the local general purpose governments.⁹² These criticisms can be pointed at SADs as well.

4. Recent Trend Towards Use of SADs for Financing PACE Programs

Beginning in 2008, several U.S. municipal governments launched Property Assessed Clean Energy (“PACE”) programs designed to help residents (and in some cases businesses) finance RE/EE improvements on their homes.⁹³ Importantly, these programs utilized RE/EE-focused SADs, called energy financing districts (“EFDs”),⁹⁴ as the mechanism for lending, providing property owners with lower-than-market interest rates on loans and allowing them to pay back these loans through their property tax (or, in some cases, their utility bill).

a. *Features and Enablement Requirements of New EFDs*

By using EFDs as a means of financing RE/EE improvements on homes, municipalities and counties can utilize some of the beneficial features of conventional SADs. This includes longer repayment periods and lower interest rates compared to conventional loans.⁹⁵ Liens on the property are *appurtenant* and thus remain with the

90. *See id.* at 962-63.

91. *Id.*

92. McCabe, *supra* note 59, at 146.

93. *See* DOE Office of Energy Efficiency and Renewable Energy, Institute for Local Self-Reliance, Comparing Local Financing Programs – July 17, 2009, table, *available at* <http://www.newrules.org/sites/newrules.org/files/ul/munifinancetablelarge.jpg> (table comparing six different financing programs).

94. FULLER, *supra* note 77, at 3 (discussing how the City of Berkeley, California first proposed the Energy Financing Districts in 2007).

95. *Id.* at 7.

property, allowing an owner to sell the property without having to be continually obligated for the assessment payments⁹⁶ Also, as with normal assessment payments, the interest portion of the repayments is tax deductible.⁹⁷ Additionally, homeowners remain eligible for the federal income tax credit.⁹⁸

From a local government's perspective, EFDs are attractive because they are a well-known, relatively secure means of financing improvements. Since SADs are already commonly used to finance a number of local improvements, municipal and county officials are more likely to be familiar with operating them.⁹⁹ Moreover, the SAD assessment lien has seniority over other non-tax related claims against the property in the case of foreclosure.¹⁰⁰

In order to implement an EFD, several legal requirements must be in place. First, local governments will need to determine whether they have the authority to collect a special assessment for RE/EE improvements.¹⁰¹ Normally, the state legislature must enable local governments to make such an assessment.¹⁰² In Colorado's case, House Bill 08-1350, passed in May 2008, granted counties and other local governments the right to provide below-market financing for RE/EE improvements.¹⁰³ Boulder County used this new power to implement a countywide EFD, called a local improvement district,¹⁰⁴ which formed the basis of its ClimateSmart program. In California, the City of Berkeley used its existing power under the Mello-Roos Community Facilities Act of 1982, which established authority for charter cities to form custom SADs, to create its FIRST program, which finances residential solar installations.¹⁰⁵ Subsequently,

96. *See id.*

97. *Id.*

98. *Id.*

99. *Id.* at 6.

100. *Id.*

101. *Id.* at 10.

102. *Id.*

103. Concerning the Facilitation of the Financing of Renewable Energy, H.B. 08-1350, 66th Gen. Assem., 2d Reg. Sess. (Colo. 2008) *available at* http://www.state.co.us/gov_dir/leg_dir/olls/sl2008a/sl_299.htm ; Memorandum, Sheridan Pauker, Associate, Wilson Sonsini Goodrich & Rosati, to Claudia Eyzaguirre and Adam Browning, Vote Solar, Authority to Implement Policies Similar to Berkeley-FIRST in Key States (Aug. 22, 2008), *available at* http://www.votesolar.org/linked-docs/key_states_memo.pdf.

104. COLO. REV. STAT. § 30-20-503(3).

105. Memorandum, Tim Seufert, Managing Director, NBS, Financing the Green (Nov. 2008), *available at* <http://www.nbsgov.com/Financing%20the%20Green%20Nov%202008.pdf>.

statewide legislation has made this power available to all California cities and counties.¹⁰⁶

Programs such as Boulder's ClimateSmart program further improve their bond rating and interest rate by creating a debt service reserve fund held in escrow, which serves as further assurance that bond creditors will be paid.¹⁰⁷ Should the fund turn out unnecessary, the city or county may use it to repay the bond early, which in turn relieves program participants of making assessment payments towards the end of the bond repayment term.¹⁰⁸

b. Survey of Country-Wide PACE Programs

Berkeley's FIRST program pioneered the use of municipal RE/EE financing in the United States.¹⁰⁹ As word of Berkeley's FIRST program spread, a number of other local governments sought to create their own PACE programs.¹¹⁰ At present, at least 16 states have passed legislation enabling municipal or county financing for RE/EE improvements.¹¹¹ Several states with such enabling legislation have yet to have any cities or counties implement a PACE program. In several other states, minor amendments to existing state law could enable EFDs.¹¹² To date, local governments with formal programs or

106. A.B. 811, 2007-2008 Reg. Sess. (Cal. 2008) (enacted).

107. Boulder County, Climate Smart Loan Program, FAQ, Obtaining Financing, <http://www.bouldercounty.org/bocc/cslp/FAQ/financing.htm> (last visited Feb. 26, 2010).

108. Ann Livingston, Sustainability Coordinator, Bd. of County Comm'rs, Boulder County, Address at the Boulder Green Building Guild Panel Discussion: R.O.I. in 5 Years – How to Take Advantage of Time Critical Rebates and Incentives to Green Your Building (Feb. 26, 2010).

109. See Posting of Katie Fehrenbacher to Earth2Tech blog, Q&A with Berkeley Mayor Tom Bates on Solar Financing Plan, <http://earth2tech.com/2007/11/06/qa-with-berkeley-mayor-tom-bates-on-solar-financing-plan/> (Nov. 6, 2007, 9:50 PDT).

110. *Id.*

111. Oregon (H.B. 2626, 75th Leg. Assem. (Or. 2009)), California (A.B. 811, 2007-2008 Reg. Sess. (Cal. 2008)), Nevada (S.B. 358, 75th Gen. Assem., Reg. Sess. (Nev. 2009)), Colorado (H.B. 08-1350, 66th Gen. Assem., 2d Reg. Sess. (Colo. 2008)), New Mexico (H.B. 572, 49th Leg., 1st Sess. (N.M. 2009)), Texas (H.B. 1937, 81st Leg. (Tex. 2009)), Oklahoma (S.B. 668, 52d Leg., Reg. Sess. (Okla. 2009)), Louisiana (S.B. 224, 35th Gen. Assem., Reg. Sess. (La. 2009)), Wisconsin (2009 Act 11 (Wis. 2009)), Illinois (S.B. 583, 96th Gen. Assem., Reg. Sess. (Ill. 2009)), Ohio (H.B. 1, 128th Gen. Assem., Reg. Sess. (Ohio 2009)), North Carolina (S.B. 97, 2009 Gen. Assem., Reg. Sess. (N.C. 2009)), Virginia (S.B. 1212, 2009 Reg. Sess. (Va. 2009)), Maryland (H.B. 1567, 426th Gen. Assem., Reg. Sess. (Md. 2009)), New York (A.B. 40004, 232d Leg. Sess., 2d Spec. Sess. (N.Y. 2009)), and Vermont (H.B. 446, 2009-2010 Leg. Sess. (Vt. 2009)); New Rules Project, Enabling Municipal Financing for Renewables and Efficiency, <http://www.newrules.org/energy/rules/enabling-municipal-financing-renewables-and-efficiency> (last visited Feb. 13, 2010). Due to widespread interest in PACE programs the legislation on this issue is likely to increase significantly in the near future.

112. Arizona, Florida, Hawai'i, and New Jersey. Pauker, *supra* note 103, at 1.

pilot projects include Berkeley, Sonoma County, and Palm Desert in California; Boulder County in Colorado; Babylon, New York; and Annapolis, Maryland.¹¹³ A growing number of other cities and counties are developing similar programs.¹¹⁴ Among the existing programs, there are variations in characteristics. Below is a brief survey of the different models pursued.

(i) Berkeley, California:¹¹⁵

Berkeley's FIRST program was launched in November 2008. In November 2007, Berkeley's city council approved of the concept for a Sustainable Energy Financing District ("SEFD"). The city amended the Berkeley Municipal Code to create the Special Tax Financing Law ("STFL") under its charter authority.¹¹⁶ The STFL, which incorporated by reference provisions of the Mello-Roos Act, authorized the creation of a SEFD.¹¹⁷ The city council established a SEFD and approved the purchase of \$80 million worth of bonds to finance the program.¹¹⁸ Berkeley set interest rates to homeowners at 7.75% and the term of the loan to twenty years.¹¹⁹ The city set the maximum loan amount at \$37,500.¹²⁰ Repayments are made in the form of a property tax assessment.¹²¹ During the recently finished pilot program, only solar energy installations were eligible for financing.¹²²

113. New Rules Project, Enabling Municipal Financing for Renewables and Efficiency, *supra* note 111.

114. *Id.*

115. See City of Berkeley, Office of Energy and Sustainable Development, Berkeley FIRST, <http://www.ci.berkeley.ca.us/ContentDisplay.aspx?id=26580> (last visited Feb. 21, 2010).

116. PHIL KAMLARZ, CITY MANAGER, CITY OF BERKELEY, ESTABLISHMENT OF SUSTAINABLE ENERGY FINANCING DISTRICT AND INTRODUCTION OF ORDINANCE LEVYING SPECIAL TAXES 1 (2008), available at [http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Energy_and_Sustainable_Development/Solar%20Financing%20District%20Council%20Rept%20Ordinance\(2\).pdf](http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Energy_and_Sustainable_Development/Solar%20Financing%20District%20Council%20Rept%20Ordinance(2).pdf).

117. *Id.*

118. *Id.*; DOE Table Comparing Local Financing Programs, *supra* note 93.

119. DOE Table Comparing Local Financing Programs, *supra* note 93.

120. *Id.*

121. *Id.*

122. *Id.*

(ii) Palm Desert, California:¹²³

Palm Desert's Energy Independence Program ("EIP") commenced in the fall of 2008.¹²⁴ The City of Palm Desert was the first to utilize the authority obtained under state statute AB 811, which was passed in 2008 to allow all California cities and counties to implement EFDs.¹²⁵ Initial funding for EIP came from the city's general fund, but subsequent funding has come from municipal bonds.¹²⁶ The interest rate to participants is 7%, with a payback period of up to twenty years.¹²⁷ Currently, half of the loans are reserved for energy efficiency improvements, while the other half is reserved for solar financing.¹²⁸

(iii) Sonoma County, California:¹²⁹

The Sonoma County Energy Independence Program (SCEIP) began in April of 2009.¹³⁰ The county obtained authority for creating the district through state statute AB 811.¹³¹ Initial funding for SCEIP came through \$45 million in treasury notes from the Sonoma County Treasury, which was later converted into long-term bonds.¹³² The terms of available loans and the interest rates are the US Treasury interest rate plus 4% for five to ten years for loans under \$5,000, or ten to twenty years for loans over \$5,000.¹³³ Payment is made through

123. See City of Palm Desert, Energy Independence Program, <http://www.cityofpalmdesert.org/Index.aspx?page=484> (last visited Feb. 21, 2010).

124. *Id.*; DOE Table Comparing Local Financing Programs, *supra* note 93.

125. New Rules Project, Municipal Property Tax Financing Enabling Legislation – California, <http://www.newrules.org/energy/rules/public-financing-renewables-and-efficiency/municipal-property-tax-financing-enabling-legislation-cal> (last visited Feb. 21, 2010). Previously, only charter cities were allowed to create these types of districts under the Mello-Roos Community Facilities Act of 1982.

126. DOE Table Comparing Local Financing Programs, *supra* note 93.

127. *Id.*

128. City of Palm Desert, Energy Independence Program, *supra* note 123.

129. See Sonoma County, Energy Independence, <http://www.sonomacountyenergy.org/energy-improvements.php> (last visited Feb. 21, 2010).

130. DOE Table Comparing Local Financing Programs, *supra* note 93.

131. New Rules Project, Municipal Property Tax Financing Enabling Legislation – California, *supra* note 125.

132. Sonoma County, Energy Independence Program, Sonoma County Energy Independence Program (SCEIP) Frequently Asked Questions 4, http://drivecms.com/uploads/sonomacountyenergy.org/1654772143frequently_asked_questions.pdf (last visited Feb. 21, 2010); DOE Table Comparing Local Financing Programs, *supra* note 93.

133. DOE Table Comparing Local Financing Programs, *supra* note 93.

a property tax assessment.¹³⁴ Both solar energy systems and efficiency improvements are eligible.¹³⁵

(iv)Boulder, Colorado:¹³⁶

Boulder's ClimateSmart program, in its own words, "provides a voluntary mechanism for commercial and residential property owners to obtain financing for renewable energy and/or energy efficiency improvements to properties in Boulder County."¹³⁷ The program is currently funded through a \$40 million voter-approved municipal bond that was approved in 2008.¹³⁸ Participating residents and businesses may receive loans ranging between \$3,000 and \$50,000 (or 20% of the value of the property, whichever is less) for RE/EE improvements.¹³⁹ They must pay back these loans with interest through a special assessment on the improved property.¹⁴⁰ The special assessment remains with the property rather than with the property owner should the property be transferred.¹⁴¹

In order to implement the ClimateSmart program, Boulder County first had to establish state-level authority to allow it to create a financing program. The result was House Bill 08-1350, which empowered local governments to propose energy-specific improvement districts and fund these programs through tax-exempt, voter-approved bonds.¹⁴² Next, Boulder County submitted Ballot Measure 1A for voter approval, which county voters approved in November 2008.¹⁴³ Ballot Measure 1A empowered the county to fund the ClimateSmart program by selling \$40 million in bonds, including

134. *Id.*

135. *Id.*

136. See Boulder County, Climate Smart Loan Program, <http://www.beclimatesmart.com> (last visited Feb. 23, 2010).

137. Boulder County, ClimateSmart Loan Program, "Boulder County's ClimateSmart Loan Program: Funding Renewable Energy and Energy Efficiency on Countywide Scale" 1, overview document, <http://www.bouldercounty.org/bocc/cslp/overview.pdf> (last visited Jan. 12, 2010).

138. *Id.*

139. *Id.* at 3.

140. *Id.* at 1, 3.

141. *Id.* at 3; FULLER, *supra* note 77.

142. Concerning the Facilitation of the Financing of Renewable Energy, H.B. 08-1350, 66th Gen. Assem., 2d Reg. Sess. (Colo. 2008) available at http://www.state.co.us/gov_dir/leg_dir/olls/sl2008a/sl_299.htm. See also Database of State Incentives for Renewables & Efficiency, Colorado, http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=CO161F&re=1&ee=1 (last visited Jan. 12, 2010).

143. ClimateSmart Loan Program, *supra* note 137, at 2.

more than \$14 million in tax-exempt bonds.¹⁴⁴ Finally, after approval by the Board of County Commissioners, Boulder County initiated the first phase of the ClimateSmart program in the spring of 2009.¹⁴⁵

(v) Babylon, New York:¹⁴⁶

Babylon's Long Island Green Homes program ("LIGH") began in August of 2008.¹⁴⁷ LIGH is unique in that it collects assessments through the homeowner's monthly electricity bill.¹⁴⁸ As with many of the programs, LIGH does not loan homeowners money; instead, it pays contractors directly to make efficiency improvements that have been identified through a program-mandated audit, which is performed by a licensed and accredited auditing company chosen by the town.¹⁴⁹ The city then contracts with the homeowner to place an assessment on his/her energy bill. The program is financed through \$2 million allocated from the city's solid waste reserve fund and the city enabled this allocation by amending its statutory definition of solid waste to include the carbon component in energy waste.¹⁵⁰ The interest rate to homeowners is 3%, with the term based on matching savings with the payments.¹⁵¹ Under the program, payments are matched to the savings incurred on the energy bill due to the improvements.¹⁵² Improvements up to \$12,000 per home are allowed.¹⁵³ As with other EFDs, the assessments stay with the property.¹⁵⁴

144. *Id.*

145. *Id.*

146. *See* Town of Babylon, Long Island Green Homes, <http://www.ligreenhomes.com/page.php?Page=home> (last visited Feb. 21, 2010).

147. DOE Table Comparing Local Financing Programs, *supra* note 93.

148. New Rules Project, Municipal Financing for Energy Efficiency Improvements – Babylon, NY, <http://www.newrules.org/energy/rules/municipal-financing-renewables-and-efficiency/municipal-financing-energy-efficiency-improvements-bab> (last visited Feb. 21, 2010); LOCAL GOVERNMENTS FOR SUSTAINABILITY, LONG ISLAND GREEN HOMES PROGRAM IN BABYLON, NEW YORK 2, available at http://www.icleiusa.org/action-center/tools/municipal-clean-energy-toolkit/CaseStudy_BabylonNYGreenHomes.pdf (last visited Feb. 21, 2010).

149. LOCAL GOVERNMENTS FOR SUSTAINABILITY, *supra* note 148, at 2.

150. *Id.*; New Rules Project – Babylon, NY, *supra* note 148.

151. DOE Table Comparing Local Financing Programs, *supra* note 93.

152. LOCAL GOVERNMENTS FOR SUSTAINABILITY, *supra* note 148, at 2.

153. DOE Table Comparing Local Financing Programs, *supra* note 93.

154. City of Babylon, Long Island Green Homes, Frequently Asked Questions, <http://www.ligreenhomes.com/page.php?Page=faq> (last visited Feb. 22, 2010).

5. Benefits and drawbacks of SADs

The unique SAD features incorporated into PACE programs provide several compelling benefits that set them apart from equity-based financing. Furthermore, in many cases parties on several different sides of the transaction realize these benefits.

First, PACE programs expand the availability of credit to homeowners who would not otherwise qualify for equity or debt financing. PACE programs do not require homeowners to have a particular credit rating to qualify, although most programs have some minimal requirements for participation.¹⁵⁵ The terms of EFD assessments are longer than normally available for most types of loans.¹⁵⁶ Expanded access is a benefit to counties and municipalities that are seeking to reduce their housing emissions. Job markets may also benefit from expanded access as work for contractors, installers, electricians, energy auditing companies, and others grows to meet new demand for RE/EE improvements.¹⁵⁷

Second, EFD assessments run with the property, not the homeowner. This helps the homeowner when it comes time to sell the property: rather than having to continue paying for improvements on the property that the seller no longer benefits from, the assessments stay with the improvements. This is an important improvement over equity and debt financing, where the seller would still be responsible for mortgage or other loan payments should she decide to sell before the loan or mortgage term was finished. In effect, this feature allows property owners more flexibility in deciding whether they can make RE/EE improvements on their properties.

Additionally, should the property owner default, the EFD lien is superior to all claims on the property aside from property tax liens.¹⁵⁸ This provides more security for the enacting municipality or county and for investors in EFD bonds since defaults are more likely to be paid. For investors, the relatively secure nature of these bonds, combined with their characterization as socially responsible or “green,” may create a new and attractive investment opportunity.¹⁵⁹

155. See, e.g., Boulder County, ClimateSmart Loan Program, FAQ, Obtaining Financing, *supra* note 107 (typical requirements include having the home located in the EFD, attending program workshops, having an energy audit conducted on the home, and submitting an application fee).C:\AppData\Local\Temp\FN\157 boulder climate smart faq.pdf

156. FULLER, *supra* note 77, at 7.

157. *Id.* at 8.

158. *Id.*

159. See Ramsay Mameesh, *Green Municipal Bonds – Economic Crisis Solved*, THE INSPIRED ECONOMIST, Feb. 7, 2009, available at

PACE programs also have beneficial tax consequences for property owners, municipalities, and investors. The tax-free status of municipal and county bonds allows these governments to obtain lower interest rates in many cases,¹⁶⁰ which they can potentially pass on to participating property owners.¹⁶¹ In addition, the interest portion of the repayments is tax-deductible, similar to mortgages.¹⁶²

Despite the numerous benefits of PACE programs, there are also some drawbacks. Most notably, only property owners, and not renters, are eligible to participate in PACE programs.¹⁶³ This may be a serious drawback in areas where most people rent, which in many cases means those with low or modest incomes.¹⁶⁴ Cities and counties may be able to address this potentially serious limitation by tailoring their programs specifically to landlords. Second, PACE programs only target permanent fixtures on the property, not easily-removable improvements such as energy efficient light bulbs or appliances.¹⁶⁵ This problem is arguably shared with many other types of RE/EE financing. Finally, the administrative costs of effectively creating and maintaining a PACE program may be prohibitively high for many municipalities and counties.¹⁶⁶ Pioneering programs such as Berkeley's FIRST and Boulder's ClimateSmart have helped reveal what other municipalities and counties should do to avoid some of the greatest pitfalls. Additionally, aggregating PACE programs may cut down on administrative costs for each individual participating county. However, administrative costs will remain an important factor for municipalities and counties deciding whether to implement their own program.

IV. ANALYSIS – WHY ENERGY FINANCING DISTRICTS ARE A MORE EQUITABLE FINANCING SOLUTION THAN DEBT OR EQUITY FINANCING

A. *Legal and Policy Benefits of PACE Financing*

Energy Financing Districts that finance PACE programs are beneficial for the multitude of stakeholders involved directly and

<http://inspiredeconomist.com/2009/02/07/green-municipal-bonds-economic-crisis-solved/>.

160. Griffith, *supra* note 78, at 961.

161. FULLER, *supra* note 77, at 7.

162. *Id.*

163. *Id.* at 8.

164. *Id.*

165. *Id.*

166. *Id.*

indirectly in the transaction. From the perspective of each stakeholder—homeowners, tax payers, bond investors, creditors, bond rating agencies, residential communities—PACE programs offer a relatively low risk source of financing that has tangible benefits for property value, the environment, and energy distribution. Conceptually, PACE financing is available to homeowners regardless of their personal debt or equity situation since the tax assessment is applied directly to the property tax. Likewise, the risk of a PACE recipient defaulting is mitigated because a tax lien is superior to most other creditor claims on the property, and foreclosure of a tax claim is not necessary. In the aggregate, residential communities that form part of an EFD benefit from the propagation of RE/EE improvements that enhance the appeal and collective value of a community. Similarly, PACE financing may arguably enhance the tax base of a community through higher property values.¹⁶⁷

For investors, the securitization of EFDs through the political subdivision's bond rating provides better investment assurance. The bond rating is based on the overall financial health of that political subdivision and is the product of a widely accepted bond rating methodology.¹⁶⁸ These bond ratings provide a clear signal that bond investors use to evaluate potential investments. Moreover, since EFDs are creatures of statute, there is a statutorily pre-determined limit to the size of the pool available for PACE program. Thus, the aggregate default risk is measurable and insurable. In most cases, PACE programs do not jeopardize a political subdivision's general tax fund since the maximum program expenditure is statutorily defined.

From the perspective of taxpayers and the community at large, EFDs are a separate line-item tax assessed on only the recipients of PACE financing. Taxpayers thus do not directly fund the RE/EE improvements of PACE recipients. As discussed, EFDs do not jeopardize municipal general tax funds.

Mortgage lenders and private lien holders may, if uninformed or on first blush, be weary of the benefits of PACE financing. Nevertheless, many EFDs create a reserve fund to offset losses

167. CLAUDIA EYZAGUIRRE & ANNIE CARMICHAEL, MUNICIPAL PROPERTY TAX ASSESSMENT FINANCING: REMOVING KEY BARRIERS TO RESIDENTIAL SOLAR 3 (2008), available at http://www.cleanenergyfortexas.org/downloads/vote_solar_initiative.pdf. But see Boulder County, ClimateSmart Loan Program, FAQ, Obtaining Financing, *supra* note 107.

168. George Palumbo, Richard Shick, & Mark Zaporowski, *Factors Affecting a Municipality Bond Rating: An Empirical Study*, 4 J. BUS. & ECON. RES. 37 (2006), available at <http://www.cluteinstitute-onlinejournals.com/PDFs/2006407.pdf>.

accruing from late assessment payments, which would otherwise result in senior tax liens.¹⁶⁹

B. Lingering Inequitable Distribution in EFD Programs

To date, EFD or PACE programs have developed as tax subdivisions of counties, cities or other municipal governments. As districts of larger political subdivisions, communities that already have an appreciation for RE/EE improvements tend to seek out and approve EFD programs. These communities must not only share a collective commitment to RE/EE, but also a perceived benefit from PACE financing. Thus, unsurprisingly, PACE programs have developed in communities of means, which also benefit from the convergence of both a high municipal bond rating and a healthy tax base. Residents in these communities must be able to support the addition of a property assessment, and must live in the same county or municipality that is floating the bond to finance the program.

Common among these PACE programs is that the foundational EFD is a subdivision and not a super-division that crosses municipal or county lines. Consequently, communities of means exclusively derive the concomitant benefits of EFD programs. Such exclusive access to property assessed financing further exacerbates the existing disparity in RE/EE project improvements. Residents in low-income communities often have below average credit and are burdened with low or even negative home equity. Similarly, political subdivisions containing low-income communities often suffer from poor bond ratings as a result of a deficient residential tax base.¹⁷⁰ Likewise, community development entities in low-income areas have suffered from constrained lending and investment during the recent economic recession. Thus, communities with either a depressed residential tax base or inferior bond ratings have little to no access to equity, debt or property-based financing.

To illustrate the barriers to EFD financing for low-income communities, the Colorado legislature is in the process of considering a bill that would regionalize PACE financing through districts that cross county lines. Currently, Colorado Law prohibits creating RE/EE improvement districts that cross county lines.¹⁷¹ Consequently, PACE programs exist in Colorado in only the wealthiest counties, such as in

169. Boulder County, ClimateSmart Loan Program, FAQ, Obtaining Financing, *supra* note 107; Livingston, *supra* note 108.

170. Palumbo, *supra* note 168, at 37-38.

171. COLO. REV. STAT. § 30-20-601.5, *et seq.* (2008).

Boulder, Pitkin, Gunnison, and Eagle Counties. Without legislation, EFDs will remain creatures of county bonding capacity. In fact, 2009 Ballot Measure 1B in Boulder County, which would have allowed four counties to band together to aggregate their bonding capacity up to \$85 million, failed to pass.¹⁷² Many cite to an inadequate marketing and outreach campaign for the measure's failure.¹⁷³ The failure of 1B illustrates the relative territoriality of EFD eligible communities to maintain exclusivity in regards to their PACE programs. That is, voters are loath to allow their county's bonding authority to become available to counties with lesser bond ratings for the purpose of expanding PACE programs. This voter reaction is despite the fact that the risks are mitigated by the increased size of the bond issuance, securitization through a reserve fund, and the more certain mechanisms for payment. As a result, legislation is necessary to expand access.

C. Prescriptive Recommendations – Regionalize PACE Programs and EFDs

In light of the inequitable distribution of PACE financing, systemic shifts ought to be made to extend the benefits to low income and EJ communities. Expansion of RE/EE financing is key to propagating clean energy technology as well as eroding its elitist stigma. As discussed, these low-income communities are constrained by endemically low levels of consumer and home equity as well as at-risk consumer debt levels. This makes debt or equity financing for RE/EE improvements improbable and a low priority from the perspective of a homeowner and aggregate community. Thus, to stimulate interest and make RE/EE an attractive investment, municipalities must take the initiative to offer alternative sources of financing.

One such mechanism to extend EFDs should be modeled off of Colorado's Senate Bill 10-100 ("SB 10-100").¹⁷⁴ Passed earlier this year, SB 10-100 purports to improve access to PACE programs by

172. Laura Snider, *Advocates Shocked by Boulder County's Defeat of ClimateSmart, Open Space Measures*, DAILY CAMERA, Nov. 04, 2009, http://www.dailycamera.com/archivesearch/ci_13716057?IADID=Search-www.dailycamera.com-www.dailycamera.com#axzz0fukjPaWh.

173. *Id.*

174. S.B. 10-100, 67th Gen. Assem., 2d Reg. Sess. (Colo. 2010), available at http://www.leg.state.co.us/CLICS/CLICS2010A/csl.nsf/fsbillcont3/5411175C3CB47DBE872576AA00693157?Open&file=100_01.pdf (the definition of "distributed generation" contained therein is beyond the scope of this article).

expanding the legal boundaries of EFDs beyond county lines.¹⁷⁵ Section 2(b)(1) expands districts eligible for PACE programs to include properties in multiple counties, whether or not contiguous and notwithstanding any intergovernmental cost sharing agreements.¹⁷⁶ Thus, counties are limited in opposing the creation of an EFD that reaches into the county on the basis of cost or geographical boundaries. SB 10-100 creates the option for joint financing districts across county lines via intergovernmental agreements.¹⁷⁷ These so-called “super-districts” address the chief conceptual and pragmatic financing constraint in low-income communities.

Once the legal framework makes super-districts possible, it is then incumbent on municipal and county governments to create the partnerships that make cross-jurisdictional PACE financing available. Predictably, some higher-income communities may balk at leveraging their own municipal bond rating for the benefit of another city or county. After all, SADs are often considered a way of narrowing, rather than broadening, the benefit of public services. However, the overall benefits of broadening the scope of EFDs far outweigh the limited risk to higher-income communities. Thus, to incentivize counties and municipalities either with existing EFDs or with proposed EFDs to aggregate with low income or EJ districts, tax incentives and/or PACE tax subsidies can be applied. Likewise, states or other jurisdictions with EFD enabling legislation can leverage these reserve funds to offset any losses incurred.¹⁷⁸ There are substantial funds available through the Department of Energy (“DOE”) for PACE program financing as well.¹⁷⁹ In order to ramp up energy efficiency and renewable energy retrofits, the White House has made hundreds of millions of dollars available for PACE financing programs.¹⁸⁰ In fact, the DOE has received approximately \$80 million in applications that could potentially be used for PACE financing.¹⁸¹ Further, the DOE is making \$454 million available pursuant to its Competitive Energy Efficiency Conservation Block

175. *Id.* at 1 (Preamble).

176. *Id.* at 4-5 (Section 2(b)(1)).

177. *Id.* at 8 (Section 5(8)(b)).

178. *Id.* at 7-8 (Section 5). SB 100 expressly calls for payments on special assessment bonds to be payable from the individual tax assessment, *reserve funds* and any other legally available monies. These reserve funds are versatile and ought to be leveraged to collateralize or secure PACE financing made available in low income or EJ communities. *Id.*

179. WHITE HOUSE, POLICY FRAMEWORK FOR PACE PRINCIPLES 4 (2009), available at http://www.whitehouse.gov/assets/documents/PACE_Principles.pdf.

180. *Id.*

181. *Id.*

Grant program.¹⁸² Conceptually, the DOE should condition these grants on providing certain EFD benefits to EJ communities and or creating or implementing a PACE program in EJ communities. Similar to the Federal Deposit and Insurance Corporation and the Fair Housing Act mortgage program, the federal government should leverage the strength and security of its balance sheet to secure PACE financing programs that are created by multi-jurisdictional EFDs.

Regionalizing EFDs to capture low income or environmental justice communities extends the reach of the 30% Residential Tax Credit for eligible solar electric facilities.¹⁸³ The federal income tax credit is not income dependent since it is tied to the net value of the solar PV system. Eligibility for the credit extends only to the direct system owner, who may finance the installation either via a cash purchase, a debt financed purchase, or PACE financing. For those who install a solar PV system utilizing third-party ownership, the third-party owner is the entity eligible for the 30% tax credit, not the homeowner.

Further, regional EFDs that envelop environmental justice communities may leverage additional tax credits designed to stimulate investment in low income and under-served communities. Congress created the New Market Tax Credit ("NMTC") in 2000 to provide tax credits to subsidize investment in under-served communities.¹⁸⁴ Although the NMTC is designed for equity investments in Community Development Entities ("CDE") to provide investment capital for low-income individuals and communities, the tax credit allocation process could be similarly applied to regional EFDs.¹⁸⁵ For instance, CDEs can apply for tax credit authority, which allows them to competitively allocate tax credits to investors that invest in low-income communities.¹⁸⁶ The CDE leverages the tax credit for a cash investment in the CDE. The investor receives a tax credit, which offsets tax liability, and the CDE receives a cash infusion. This tax credit could be applied to bond investments in EFDs that include or allocate PACE financing in low-income communities. The tax credit

182. *Id.*

183. I.R.C. § 25D(a)(1) (2006).

184. BRADLEY J. HAIGHT, ANN L. WEST, & JAMES C. HACKSTAFF, COLORADO PHOTOVOLTAIC SOLAR DEVELOPMENT CONSIDERATIONS 35 (2008), *available at* <http://rechargecolorado.com/images/uploads/pdfs/03d01b996a2876c1b47ad6f5e76b2128.pdf>; I.R.C. § 45D(a)(1).

185. COLORADO PHOTOVOLTAIC SOLAR DEVELOPMENT CONSIDERATIONS, *supra* note 184, at 35-37.

186. *Id.*

would be generated by the regional EFD as an entity akin to a CDE since it is designed to stimulate investment in low-income communities. Regional EFDs that include EJ or low-income communities would generate the NMTC for so-motivated bond investors. The community benefits from access to low cost land-based financing for RE/EE projects.

Energy Finance Districts have demonstrated their ability to provide mutual benefit for all stakeholders; however, their reach has been somewhat limited to relatively wealthy communities. Many of the benefits of EFDs, such as district-wide risk distribution, long-term repayment, market-based bond financing, and the use of reserve funds, reach communities of homeowners who are generally well-positioned to access financing for RE/EE improvements. Consequently, PACE programs in wealthier communities may not provide the full measure of benefits because they fail to leverage the multiple involved stakeholders to reach new markets for RE/EE. Regional EFDs should expand the availability of PACE financing to lower income and EJ communities because these homeowners have few alternative sources of financing and likely would not otherwise elect to spend money on renewable energy or energy efficiency improvements. Regional EFDs also tap a larger tax base, and spread the default risk over a larger pool, hence achieving economies of scale. Finally, regionalizing EFDs will also likely reduce the overall administrative costs of the program for participating cities and counties. Thus, these super-EFDs are both a conceptual as well as pragmatic solution to the problem of inequitable access to RE/EE project finance in low-income communities.

D. Future of EFD for Green Development

Pioneering PACE programs, such as Berkeley's FIRST and Boulder's ClimateSmart have demonstrated that EFDs are effective public finance vehicles for green development. Both programs shed light on best practices and programmatic pitfalls. If properly constructed, EFDs show promise to solve many of the problems associated with RE/EE project finance. PACE programs lower the initial capital costs and transactional costs associated with RE/EE investments. Additionally, PACE programs provide a secure, long-term repayment structure, while promoting a well-established and attractive "green" market for bond investors. The DOE's recent injection of \$80 million demonstrates the federal government's

commitment to expanding the scope and reach of PACE programs.¹⁸⁷ As part of this commitment, the DOE has undertaken a substantial research effort to assess the effectiveness of PACE programs.¹⁸⁸ Expanding PACE programs into EJ communities and low-income communities achieves a number of the goals associated with DOE funding. Thus, expanding regional EFDs to aggregate wealthy communities with EJ communities achieves many of the benchmarks of an effective public finance structure. Given the conventional legal structure of EFDs, expanding PACE financing is more a function of scale than legal novelty or barrier.

Going forward, the legal protections that make EFD-based PACE programs secure and attractive to bond investors, tax payers, policymakers, creditors, mortgage lenders, and others should give great comfort to the same when aggregated across jurisdictional lines to include lower income communities. To overcome any initial trepidation on the part of stakeholders, federal tax subsidies, such as the NMTC and the 30% federal Residential Tax Credit, should be applied to initial investments in regional EFDs that envelop EJ communities.

PACE financing addresses many of the root causes associated with high mortgage default rates, constrained credit markets, declining property values, capricious land and property development, and the limited penetration of renewable energy and energy efficiency. Policy aimed at alleviating or solving the current economic recession ought to include further expanding the reach of PACE programs through regional energy finance districts.

V. CONCLUSION

Propagating RE/EE project finance in environmental justice communities is not merely a mission-driven ideal; it is the key to making on-site RE/EE a mainstream option for homeowners. Moreover, when on-site renewable energy and energy efficiency penetrate into EJ communities, they carry along educational, professional, economic, and other benefits to the community itself. Land secured financing adds value, both tangible and intangible, to communities otherwise suffering from low property values, troublesome levels of home equity, and few options for clean energy financing. PACE financing that aggregates EFDs crossing both low and high-income communities provides a socially and economically

187. POLICY FRAMEWORK FOR PACE PRINCIPLES, *supra* note 179.

188. *Id.*

equitable green investment opportunity for bond markets. Likewise, multi-jurisdictional EFDs connect local government to communities by addressing local needs as well as the public good.