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Property Assessed Clean Energy (PACE) Best Practices And Other Cities' Experience

How will we create jobs and promote both energy efficiency and renewable energy long after American Recovery and Reinvestment Act money is gone? Properly designed, municipal energy financing, Property-Assessed Clean Energy (a.k.a. Sustainable Energy Municipal Financing, Clean Energy Assessment Districts, energy loan tax assessment programs (ELTAPS) or Special Tax Districts) provides an innovative mechanism for municipalities to use private financing for funding energy efficiency and renewable energy projects for property owners – at no upfront cost to the property owner and low cost to the municipality.

PACE programs have tremendous potential to increase the accessibility and affordability of energy saving measures, consequently lowering energy bills to residents and reducing the environmental footprints of municipalities**.** If programs are not properly constructed, however, the programs could potentially create risk for participants and the program administrator. Financing, without contracting standards, or incentives based on performance, will not deliver the type of market transformation we need to see retrofitting scale up to achieve our goals. Existing programs have taken steps to design property and project criteria for eligibility as well as quality assurance measures that mitigate risk without unnecessarily limiting accessibility. Municipalities have approached these issues in different ways, and this document serves to document best practices that can be discussed and codified by the agencies of the government.

Innovative financing models that leverage public money with private financing are particularly important now given the Recovery Act's $11 billion investment in energy efficiency via State Energy Programs (SEP), Energy Efficiency Conservation Block Grant programs (EECBG) and Weatherization Programs (WAP). Given this amount of investment by the federal government, it would be a real loss to not enable private financers to leverage public monies with private capital.

Introduction to PACE

The Property Assessed Clean Energy Model solves the basic problems of energy efficiency financing in the United States: credit and collateral, plus the barriers of upfront cost, and the inability of the property owner to recoup the value of the system upon sale of the property. The PACE model enables property owners to add a line item to their property tax bill and receive third party financing.

All variations of a potential municipal energy financing structure involve getting Property Owners to opt-in to voluntarily attach up to 100% of a private financing to their property tax bill, and financing EE/RE upfront for Property Owners. In the event of nonpayment of the loan payments on a property tax bill, the municipality has the ability to foreclose on the delinquent property or may choose to wait for another party initiate foreclosure. A municipality may establish a reserve fund to float late loan payments so that investors are guaranteed to be paid on time.

A for-profit or non-for-profit entity, "Aggregator" could aggregate financers, municipalities, and contractors who can all make money though financing and installing energy efficiency and renewable energy for property owners. Aggregator would leverage American Recovery and Reinvestment Act money with private capital. Aggregator could be partly financed through municipalities' Department of Energy EECBG to pay for administrative costs or to subsidize the loans to property owners. The key is to use EECBG funding (whether formula or competitive) to kick-start an aggregator that would enable private financing.

The key to the structure is that loans for energy efficiency and renewable energy (EE/RE) are added to a property owner's property tax bill, enabling financers to get comfortable with collateral and credit issues associated with financing EE/RE. The loan is secured by a lien on the property that takes precedence over any mortgage claims to the property. Aggregator's structure eliminates what we believe to be the key reason for this lack of EE investment for privately owned properties: financers cannot get liens on energy efficiency equipment that becomes a fixture installed at property owners' sites.

Land-secured financing districts (also known as special tax or assessment districts) are a familiar tool in municipal finance. In a traditional assessment district a municipality issues a bond to fund projects with a public purpose such as streetlights, sewer systems or underground utility lines, and those property owners that benefit from the improvement repay the bond through a property tax payment, secured by a senior property lien. By extending this model of finance to energy improvements the municipality allows property owners to pay for energy improvements at rates that roughly approximate utility bill savings and attaches debt to the property, not the individual, eliminating uncertainty about recovering the cost of the system if the property is sold.

Potential Direction for Best Practices

The following sections of this document present several existing and proposed criteria for Best Practices for the PACE model. We put them forward as potential starting points for discussion.

Property and Property Owner Criteria

- Ensure Applicant is a legal owner of the property
- Require the unanimous approval of all owners of the property
- Check title for restrictions like easements or subordination agreements to rule out conflict with assessment
- Participation in the program would be allowed if the following are met:
    - Property taxes are current and have been current for three years
    - No tax liens of any kind on the property
    - No involuntary liens such as mechanics liens
    - No notices of default or any other evidence of property based debt delinquency for the past three years

- Owners would be required to attend a mandatory educational workshop to ensure that all terms and conditions are understood and to meet with a loan originator prior to their approval into the program.
- Owners would agree to 'tax' themselves (repay in future) for energy efficiency or renewable energy improvements to their property

Audit Requirements

- Require a credible home energy assessment at the time of financing to identify appropriate measures
- Audit will provide the initial score as well as recommendations that will improve energy efficiency, comfort and indoor air quality
- Audit will set a baseline energy score/index that will serve as a performance metric
- Audit results will provide supporting documentation for the finance application and proposed performance of work.

Underwriting Criteria

- Standard Underwriting guidelines will be created and vetted by appropriate agencies (see Appendix for Green Building Underwriting Standards developed by the Capital Markets Partnership and the US Conference of Mayors as an example)
- The underwriting standards present legally binding certification by the certifying entity that the certification of the score is accurate
- The combination of the underwriting standards and the certified, credible score presents an easy-to-implement tool that will allow lenders, private equity investors, developers and real estate owners rate an assets "greenness" at the time of financing or acquisition
- Criteria will also help quantify the added financial value from performing the energy efficient measures

Improvements/Actions Performed Criteria

- Implement a cost floor and ceiling for the financing programs; the required measures designate the floor, while the optional improvement selection cannot move past the ceiling
- All measures must be permanently affixed to the home
- Set a cost effectiveness standard for projects such as weatherization community SIR rating (savings to investment ratio of > 1)
- There should be a list of Required Improvements mandated for financing:
    - Air Sealing (with blower door test, adding weather stripping, etc)
    - Attic Insulation, but only after Air Sealing is completed, and must meet current code.
    - Hot Water System Insulation
    - Combustion Appliance Safety Testing shall meet Building Performance Institute (BPI) or other standards for combustion appliance safety checks.
    - Installation of a combined carbon monoxide and smoke alarm
- Sample Optional Improvements to be available for Financing include: installation of a programmable thermostat, installation of energy efficient pool pumps and solar hot water pool heaters when replacing pool water heater that uses conventional fuels, installation of

compliant lighting fixtures and/or Energy Star rated fixtures & controls, On-Demand Water Circulation Control Pump (*continuous* recirculating water pumps not allowed), Energy STAR bathroom fan vented to the outside.

Legislation:

- Municipal and/or state legislation is required to enable property owners to add a line item to their property tax bill
- The legislation can merely enable property owners to opt-into a privately financed program or allow a municipality to issue a bond for financing purposes
- Suggested legislation: "encourage energy efficiency improvements and or renewable energy production by establishing a program which will direct the Director of Finance to add up to 100% of privately-financed energy efficiencies improvements to a property's tax bill; and all matters generally relating to energy efficiency improvements and renewable energy production".
- Suggested legislation: "City property owners who privately finance energy efficiency improvements and or renewable energy production equipment have the option to voluntarily attach up to 100% of the privately financed amount to the subject property's tax bill"
- It was also designed to "eliminate confusion" about the existing incentives available for energy efficiency and serves the purpose to remove the barriers caused by this confusion. (see Appendix)

Financial Terms

- Set a Combined Loan to Value Ratio (CLTV) OR the SIR rating (savings to investment ratio of > 1) appropriate for the program and community
- Potentially require that the balance on all outstanding property based debt is greater than the value of the property
- Require that homeowner take advantage of existing complimentary energy efficiency incentives (rebates, grants) to reduce the initial cost of financing
- The loan period cannot exceed the expected lifetime of the measure
- Other potential financial enhancements include
    - **Reduced Interest Rates -** finance either through a public benefit charge or through a lower-interest source of capital that borrowers do not have access to outside of the program.
    - **Guaranteeing loans** or pre-funding reserves (funds set aside to cover defaults) enable lenders to offer loans to a wider group of borrowers, and also allow lenders to offer lower interest rates because of security provided by the guarantee.
    - **Subsidized Transaction Costs** – Some programs offer free audits or cover the costs of "handholding" a customer through the process to reduce transaction costs.
    - **Including Energy Costs and Savings in the Underwriting Criteria** – One credit enhancement is for the lenders to include the energy savings on the income side when they are evaluating a borrower's credit using a debt-to-income ratio.

Determining Appropriate Raters/Contractors/Installers

- Choose installers based on a nationally approved list of HERS or otherwise certified Raters, contractors and BPI accredited (or otherwise accredited contractors)
- To receive funding a program verified contractor must be used
- Once the project is completed the homeowner must submit the contractor invoice, all relevant permits, and incentive verification (i.e. from the California Solar Initiative)
- A post installation energy assessment or “test-out” may be required
- All Contractors must possess valid licenses

Quality Assurance for work performed shall be accomplished as follows:

- Rater – 5% of all jobs shall be third party audited
- Contractor – 10% of all jobs shall be third party audited for quality assurance until

BEST PRACTICE: SAN FRANCISCO, CA
PENDING PACE PROGRAM, TO BE LAUNCHED LATE 2009

The City of San Francisco is preparing to launch a PACE program later this year and is still actively engaged in the program design phase. Because San Francisco is a charter city, they intend to pass a local ordinance allowing them to use the Mello Roos Community Facilities Act to form a special tax district for this purpose. San Francisco staff and program administers have studied other programs extensively and have taken care to incorporate the insights and experience of other municipalities into their own program. This program is intended to be ambitious in scope, funding renewable energy, energy efficiency, and water conservation for single family residential, multifamily residential, commercial, and non-profit properties.

<u>Property Criteria</u>: In order to minimize risk for both homeowners and the program, San Francisco has proposed property underwriting standards that are more rigorous than are typically required in California special tax districts. Documentation will likely be required of participants at the time of application. Proposed criteria include: verification that all persons on the property deed consent to the program terms, no other liens, easements, or subordination agreements against the property, no recent or late property tax payments or bankruptcy, no recent history of default, and that the owner has positive equity in the property. Additionally, staff intends to take steps to ensure that the lien will not result in an unmanageable increase in property taxes by setting a combined loan to value ratio (CLTV).

<u>Project Criteria</u>: Property owners will likely only be able to select improvements from a list of measures that have been identified as effective for the city’s climate. Current program design protocol calls for a Home Energy Rating System or similar audit to identify cost effective measures appropriate for each property. The program is designed to allow for multiple loan periods so that repayment will not continue past the expected life of any given measure.

<u>Quality Assurance:</u> San Francisco intends to leverage existing programs and institutions to reduce the risk of fraud and assure that property owners and the city realize the intended benefit of the financed projects. The city currently plans to require all applicants to complete a third party whole home performance assessment that will identify only cost effective measures, and

provide information to the property owner about the financial payback, expected lifetime, and environmental impacts of proposed measures. Contractors must be approved by the City. Prior to funding, the property owner must submit an invoice from the contractor, all required permits, California Solar Initiative certification for photovoltaic installations, and verification from the third party auditor that the building is performing as projected. Payment will be issued directly to the property owner unless the owner assigns payment to the contractor following the completion of the project.

BEST PRACTICE: BERKELEYFIRST
PACE PILOT PROGRAM LAUNCHED NOVEMBER, 2008

As one of the pioneering programs, Berkeley's pilot was intended as a proof of concept and is more limited in scope. The pilot exclusively financed photovoltaic installations, which allowed for simpler more straightforward project criteria and quality assurance procedures. Given the success of the pilot, Berkeley has been planning to launch a second larger phase, which includes energy efficiency, in the near future.

<u>Property Criteria</u>: In order to qualify for financing property owners were required to verify that all owners on the property title agreed to program terms, that the property owner had not declared bankruptcy in the past seven years, that the property owner was current on all property related debt, and there were no involuntary liens or judgments on the property. Before requesting funding the property was also required to meet the minimum energy efficiency standards incorporated in the City's Residential/Commercial Energy Conservation Ordinance.

<u>Project Criteria</u>: In the pilot, Berkeley only financed solar photovoltaic installations. It was required that all participants take advantage of the California Solar Initiative (CSI) rebate and meet all CSI terms. This includes the use of CSI qualified installers and a significant set of regulations governing system size, quality, and performance. All solar systems are also required to carry a minimum 10-year warranty. Property owners were allowed to finance a maximum of $37,500.

<u>Quality Assurance</u>: In order to confirm that the system was installed property owners were required to submit an installer invoice, the CSI Confirmed Reservation Notice Letter, and the Final Electrical Permit Inspection from the City Building Department. Property owners also authorized the release of CSI and utility data, enabling the city to track energy savings from the program.

BEST PRACTICE: BOULDER CLIMATESMART LOAN PROGRAM
LAUNCHED APRIL 2009

Boulder County, Colorado was able to use newly passed HB 1350 to establish a PACE program. The Program launched in April of 2009 and the County has already completed one round of residential funding, is currently accepting applications from commercial properties, and plans to begin a second residential phase in the Fall. The program is able to finance a variety of energy saving measures including efficiency work, small wind, biomass and solar.

Property Criteria: Boulder requires application verification of property ownership: that the property is within Boulder County, that the property is not a mobile home, and that the property is not delinquent on property taxes, and has not been delinquent in the past three years. Boulder also requires property owners to attend a mandatory educational workshop to ensure that all terms and conditions are understood and to meet with a loan originator prior to their approval into the program.

Project Criteria: The program designed a portfolio of energy efficiency and renewable energy projects that were well suited to the municipality's climate and geography and applicants were able to choose any of those identified measures for financing.

Quality Assurance: In order to confirm that all measures have been completed the participant must submit contractor invoices and building inspection permits before they receive funding. The program administer receives utility records in the future in order to track energy savings.

BEST PRACTICE: PALM DESERT, CA
PROGRAM LAUNCHED AUGUST, 2008

Since its launch in August of 2008 Palm Desert's Energy Independence Program has financed $5 million in renewable and energy efficiency projects. The application period for third round of funding was recently closed in early July. The program has used California's AB 811 legislation to establish the program.

Property Criteria: Palm Desert's Office of Energy Management (OEM) verifies that the applicant is the property owner, that the property is within the city of Palm Desert, that the property is not exempt from property taxes and the owner is not delinquent in paying property taxes, and the property owner is not involved in bankruptcy proceedings.

Project Criteria: The Palm Desert Energy Independence Program finances approved renewable energy and energy efficiency measures that are affixed to the property and are on the list of approved measures.

Quality Assurance: The Palm Desert's OEM provides free counseling and building performance audits to applicants to identify cost effective measures for individual properties. In order to protect consumers, participants must use program-approved contractors and city staff review bids to verify that cost estimates are reasonable Once the project is completed the OEM reserves the right to inspect the property improvements before funding is disbursed. Although Palm Desert does not access utility bills for privacy reasons, the program tracks several selected building's energy performance in real time.

Best Practice: Sonoma County, CA
Program Launch November 2009

Sonoma County established a Municipal Energy Financing District under California's AB 811 and is financing renewable energy, energy efficiency, and water conservation measures for residential and commercial properties. The program was launched in the spring of this year. The program only qualifies for existing buildings. The end result is an assessment which is a lien on the property itself. When the property is sold, the assessment stays with the property.

Property Criteria: The County verifies that the applicant owns the property, the property is within the County, the property owner is current on property taxes and mortgage payments, the property owner has not declared bankruptcy, and there are no involuntary liens on the property. The program also verifies that the loan to value ratio is reasonable, generally not exceeding 1:10.

Project Criteria: The city has a list of eligible renewable energy, energy efficiency and water conservation measures which are affixed to the property. Water conservation and energy audits are mandatory for commercial buildings, and are highly recommended for residential.

Quality Assurance: In order to confirm that all proposed measures are completed, all improvements (including those that are normally exempt from permit requirements) will require a permit from the permitting jurisdiction. In order to receive the permit the measures must be inspected after completion. Funding will not be disbursed until permits are submitted.

Existing Programs' Terms

	Berkeley, CA –FIRST	Annapolis EZ	Sonoma County	Boulder, CO – ClimateSmart Loan Program	Palm Desert, CA - Energy Independence Program	Long Island Green Homes Program, Babylon, NY	*Milwaukee Shines* Solar Revolving Loan Fund
Program Launch Date	Nov-08	Nov-08	Apr-09	Apr-09	Oct-08	Aug-08	Apr-10
Current Status	38 projects financed; only $1.5 MM avail	Pilot - working on contracts	Approved - for energy and water improvements	517 projects committed	End of Phase 2; 206 applications; maxed out financing	98 projects in queue; $1.6 MM still available	Ordinance establishing program to Council Feb 22, 2010
eligible (non-rental) units	21436	8647	111896	81180	23430	59200	105,186
participation rate	0.177%			0.637%	0.879%	0.166%	TBD
Funding source	Municipal revenue bonds; microbonds	local banks	County Treasury Notes at 5% above UST	Tax-exempt + private activity bond repaid through special fee on HH property tax bills	Phase I: City's General Fund ($2.5 million); Phase 2: $5 MM in Bond Issuance	municipal solid waste revolving fund	Phase 1: Private Contributions Phase 2: Muni Bonds
$ committed to program	$1.5 MM pilot Phase II will be larger (75 residential, 25 commercial)	$1.5 MM	$5 MM	approved to sell up to $40 MM bonds, including $14 MM in Tax Exempt bonds	$7.5 MM	$2 MM from solid waste reserve fund acts as revolving fund;	150,000
interest rate	7.75%	5.50%	8.50%	TBD (max 8.75%)	7%	3%	Prime
term	20 yrs	20 yrs	10-20 yrs (if over $5000), 5 yrs if < $5000	15-20 years	up to 20 years	based on matcing savings with payments	Up to 15 years
Admin Fee paid by PO	1-2% total loan value	$250	5%	$75	$200	3% interest rate covers admin costs	$50 application fee + 0.5% of loan amt.
Other expenses			$150 onsite inspection fee; title check of $65-$215	1-2% total loan value for loan processing fee	$360 title insurance policy	$250 audit cost	1.5% of total loan for bad debt reserve
How Quickly $ is committed	received all avail applications in first day - committed 6 mo later	TBD	TBD		$2.5 MM committed in 3 weeks; $5 MM of Phase II committed in 3 weeks	$400K in queue for retrofit in 5 months ($1.6 MM still avail)	TBD
% to residential property owners	100%	100%	avail to res, commercial & industrial	70.0%	98.5%	100%	Only available to residential
Loan Amt	max $37,500	TBD	$2500 up to $500 K (requires approval after $60 K)	min $3000; $15000 max for T-E bonds, $50000 max or 20% property value for non T-E bonds	$5000 or greater	up to $12000	Min $3,000 Max $20,000
Enabling Legislation	CA – AB811+City Council Program approval	City Resolution and Ordinance	CA – AB811+City Council Program approval;	CO House Bill 08-1350 + City Ballot Issue 1A: Nov 08	CA – AB811 + City Council Program approval	City Council Resolution Approval – Aug. 08 to expand Solid Waste Code	WI: 66.0627 Milwaukee: 090376
Owner Repayment Mechanism	Property Taxes; Special Tax	Loan through community bank		Property Tax Assessment	Property Tax Assessment	assessment fee for removing solid waste	Property tax assessment
Administration Provided by	1.25 FTE from City Planning Dept; $227 K total in admin	Chamber of Commerce Foundation		1 FTE Finance Division	1.5 FTE - Office of Energy Mgmt;have $90 K budget	3 FTE from City	NIDC