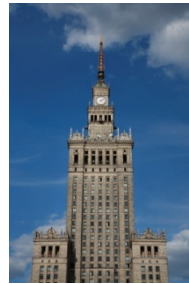


**PACE Finance:  
Innovative Funding to Accelerate  
the Energy Retrofit of America's Buildings**

**October, 2009**

## America's Building Stock

- Nearly 40% of our nation's energy usage and greenhouse gas emissions (GHG) are from buildings and homes



Number of Units

Approximate % of US Energy Consumption

Number of Units Per 1% of Nation's Energy Usage

### Commercial

5 million

20%

250,000

### Homes

100 million

20%

5 million

- Each building retrofit = 20 Homes



## **PACE Finance: Innovative Funding to Accelerate America's Retrofit**

**Question:** How do we create a market for retrofit finance that can dramatically accelerate the energy retrofits of America's homes and buildings?

**Answer:** Property Assessed Clean Energy ("PACE") Finance

### **Major Catalysts:**

- Fannie Mae and Freddie Mac support PACE programs with clear guidelines that are not administratively burdensome and that respect tax treatment of liens
- To scale PACE, in the future it might be helpful for the federal government to provide credit guarantees
  - Low to no fiscal cost to U.S. taxpayers
  - High probability of program success

## What is PACE Finance?

**PACE = Property Assessed Clean Energy Finance**

**Definition:** Property owners borrow money from a newly established “municipal financing district” to finance energy retrofits (efficiency measures and micro renewable energy) and repay over 20 years through annual special tax on property tax bill

**Innovation:** Innovative financing that dramatically improves the economics of energy retrofits (efficiency measures and micro renewable energy) due to the elimination of the upfront cost barrier for property owners, the long term nature of the repayment period, and structuring the payment as annual property tax surcharges

### Typical Steps:

1. State enabling legislation allows for special municipal taxing districts
2. Municipality (city or county) creates a special “PACE” district
3. “PACE” district issues a “PACE” master bond
4. Commercial/residential real estate owners apply for PACE funds to install hyper energy efficiency measures and renewable energy production (e.g. solar)
5. PACE funding treated as senior “property tax lien” and repaid by real estate owner over 20 years as annual property tax surcharge

## The Advantages of PACE Finance:

### 1. Our Nation:

- Large job creation
- Accelerates movement toward energy independence & reduces GHG emissions
- Very low fiscal cost & high probability of success

### 2. Property Owner:

- Elimination of “up-front” cost barrier
- Positive cash flow on retrofits (annual savings>cost) which frees up household income for mortgage payments
- Lower energy bills and lower vulnerability to spikes in energy prices

### 3. States, Cities & Municipalities:

- Immediate job creation
- No credit or general obligation risk: Obligation is liability of real estate owner
- Greenhouse gas reductions/energy independence
- Opt in: Only those real estate owners who opt in pay for it

### 4. PACE Lender:

- Super senior tax lien with virtually no risk of capital impairment
  - Historical loss rates on property tax liens are de minimis
    - 97% of property taxes are current
    - Property tax losses are less than 1%

### 5. Existing Mortgage Lenders:

- Improved borrower cash flow reduces mortgage default risk
- Increased collateral value
- PACE senior lien in a foreclosure is de minimis: only past due tax lien becomes due, typically less than 1% of mortgage/home value (see appendix 2)

## **PACE: States & Municipalities Help Lead the Way**

- **Existing statutory ability to launch PACE programs:**
  - Florida & Hawaii
- **In the last 12 months, these states passed enabling legislation for PACE programs:**
  - California (AB 811)
  - Colorado (HB 08-1350)
  - Illinois (SB 583)
  - Louisiana (SB 224)
  - Maryland (HB 1567)
  - Nevada (SB 398)
  - New Mexico (HB 572)
  - Ohio (BH 1)
  - Oklahoma (SB 668)
  - Oregon (HB 2181 & HB 2626)
  - Texas (HB 1391 & HB 1937)
  - Vermont (H 446)
  - Virginia (SB 1212)
  - Wisconsin (AB 255)

2010: Many more PACE enabled states anticipated

## PACE Industry Key Catalysts

### 1. Fannie Mae/Freddie Mac (“the GSE’s”) cooperate with PACE program development

- Clear Guidelines: It is imperative that the GSE’s provide clear guidelines that are not administratively burdensome and that they respect the senior tax structure of PACE liens
  - Burdensome administration, legal requirements, or underwriting criteria would eliminate PACE programs and potentially the best opportunity to rapidly retrofit America’s built environment
- Best Practices & Quality Control Assurance:
  - The longer term success of PACE programs will be ensured through “Best Practice” and “Quality Control” standards.
    - The Standards need:
      - To start with initial flexibility given infancy of PACE program industry (e.g. shortage of auditors)
      - To be developed in conjunction with feedback from municipalities to ensure that the standards can be efficiently administered at the local level

## PACE Industry Key Catalysts:

2. To scale PACE on an accelerated basis, federal credit guarantees would be helpful
  - PACE Finance Main Obstacle: Limited bond buyers and high financing cost
    - PACE bonds are taxable
    - The market for taxable municipal bonds is illiquid, small and expensive
  - Federal Appeal: Senior lien status results in virtually no risk/cost to federal government and taxpayer. Purpose of credit guarantee is to jump start new asset class

### Bond Market Summary:

<u>(10 yr duration +)</u>	<u>Treasury Bonds</u>	<u>Tax-Exempt Munis</u>	<u>Taxable Munis</u>	<u>Small Taxable Munis</u>
Market Size	\$540 billion	\$330 billion	\$6 billion	?
Rate	3.8%	4.5%	7%+	?

Solution: Department of Energy (“DOE”) or Treasury Department credit guarantee for PACE bonds

- PACE bonds/liens now viewed as treasury bond surrogate
  - PACE bond issuers and buyers benefit from deeply liquid, large treasury bond market - \$500 billion + market
- Issuer/Bond Buyer Advantage:
  - Interest rates reference the treasury bond market
- Federal Advantage:
  - Serves as the catalyst for our nation’s retrofit program and has virtually no long term credit risk/cost to taxpayers

## Summary:

- Over the past several decades America's market for energy retrofit finance has failed to develop
- PACE Finance has the potential to finance and dramatically accelerate our nation's energy retrofit
- The key catalysts for acceleration and success include:
  - GSE cooperation – seniority must be honored and administration must be reasonable
  - Federal credit guarantees to help new asset class develop rapidly
- In the past year 14 states have passed PACE enabling legislation with many more to come
- To ensure PACE programs success, “Best Practices” and “Quality Assurance” standards must be developed in partnership with municipalities
- All key stakeholders can benefit from PACE finance:
  - Our nation
  - Homeowners and building owners
  - States, cities & municipalities
  - Existing mortgage lenders
  - New PACE lenders

## Appendix 1: Anticipation of PACE Criticisms

1. *“PACE increases risk to GSE’s due to senior status of PACE liens.”*

Response:

- PACE lien seniority in foreclosure represents less than 1% of home value/GSE mortgage value
- PACE “Best Practices” should require states to have “no due upon sale” clauses for PACE liens. Essentially, the PACE lien does not accelerate upon foreclosure.

2. *“PACE” increases risk to borrower’s/GSE’s due to increased leverage”*

Response:

- PACE liens should be either positive net present value or cash flow positive in year 1
  - If they are cash flow positive in year 1, this frees up homeowner cash flow to make mortgage payments and reduces risk of default
  - If they have positive net present value, then this should result in increase in the value of the collateral

3. *“PACE programs run the risk of consumer fraud”*

Response:

- Best practice and quality assurance programs are being developed in conjunction with municipality feedback (see best practice handouts) to help ensure the integrity of PACE programs

## Appendix 2: Analysis of PACE Tax Lien Seniority to Existing Mortgage

Conclusion: The amount of seniority to the existing mortgage created by a PACE lien will typically represent less than 1% of home value

- This is because in most PACE states, upon foreclosure, only the delinquent tax lien gets paid (not the whole PACE loan) while the homeowner assumes the remaining balance

### Assumptions:

- Home Value \$300,000
- Mortgage 250,000
- PACE Lien 15,000 (5% of home value)
- Annual PACE 1,392 (7% rate, 20 year amortization)
- Property Surcharge
- Average Period Between Delinquency and Foreclosure Less than 12 months
- Assume 1 year PACE surcharge is delinquent and paid ahead of the mortgage:
  - » Senior Payment: \$1,392
  - » % of Home Value: .5%
  - » % of Existing Mortgage: .6%