



Commercial PACE: What Does It Mean for the Market?

Tuesday, May 16

11:15 AM – 12:30 PM

Speakers and Moderator

- **Speakers**
 - Stacey Lawson, Ygrene Energy Fund
 - Bracken Hendricks, Urban Ingenuity
- **Moderator**
 - Sean Williamson, U.S. Department of Energy

Resources

State and Local Solution Center



November 2016

LBNL-1006406

Current Practices in Efficiency Financing: An Overview for State and Local Governments

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**ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY**



C-PACE A Capital Opportunity

Stacey Lawson
Ygrene Energy Fund

Better Buildings Summit
May 2017



Leading residential and commercial PACE provider nationwide

- Tax financing for energy efficiency, renewable energy, water conservation and building resiliency improvements
- 340+ cities and counties
- Operating in CA, FL, MO; Opening programs in additional states
- \$2.3+ billion in PACE applications for 71,481 properties nationwide

Mission to invest several billion in green financing in local communities over the next five years by making energy and water saving improvements easy and affordable for every property owner

- Upgrade 100,000+ buildings
- Create and sustain 45,000 jobs
- Save 1M metric tons of CO₂

AWARD-WINNING YGRENE WORKS PROGRAM



- **2016 Goal Achiever Award:** Department of Energy Better Buildings Challenge
- **2013 Certificate of Recognition:** Solar Decathlon, U.S. Department of Energy
- **2013 Commitment to Action:** Clinton Global Initiative
- **2012 Edison Award:** Best Clean Energy Finance Model
- **2012 Business Model Innovation Award:** Energy Efficiency Silver, Climate Change Business Journal
- **2012 Screw Business as Usual Award:** Virgin Unite with Sir Richard Branson, Carbon War Room and the United Nations Foundation
- **2011 Financial Ally Award:** Better Buildings Challenge, U.S. Department of Energy

CUMULATIVE PACE INDUSTRY VOLUME

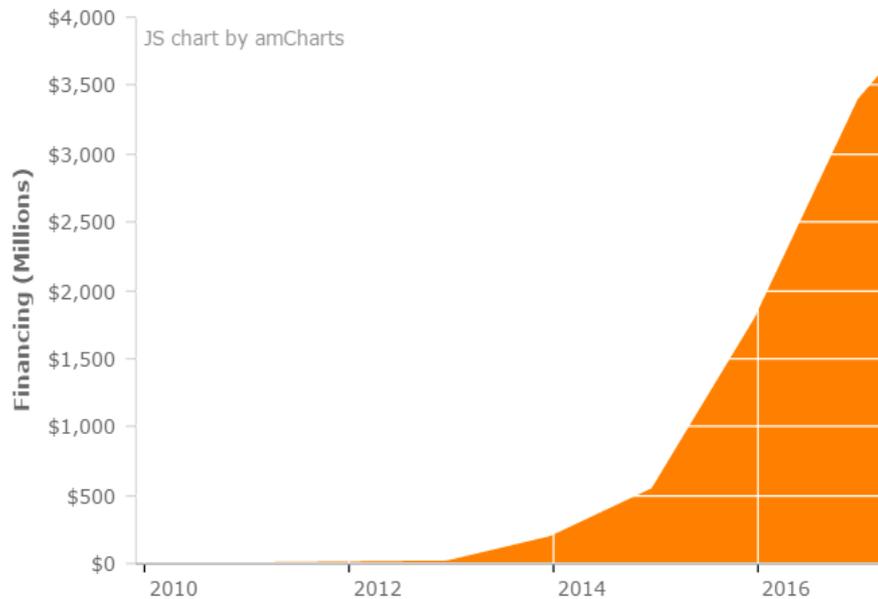


2016 PACE Industry volume = ~\$2.5B

2017 projected PACE volume = ~\$4B

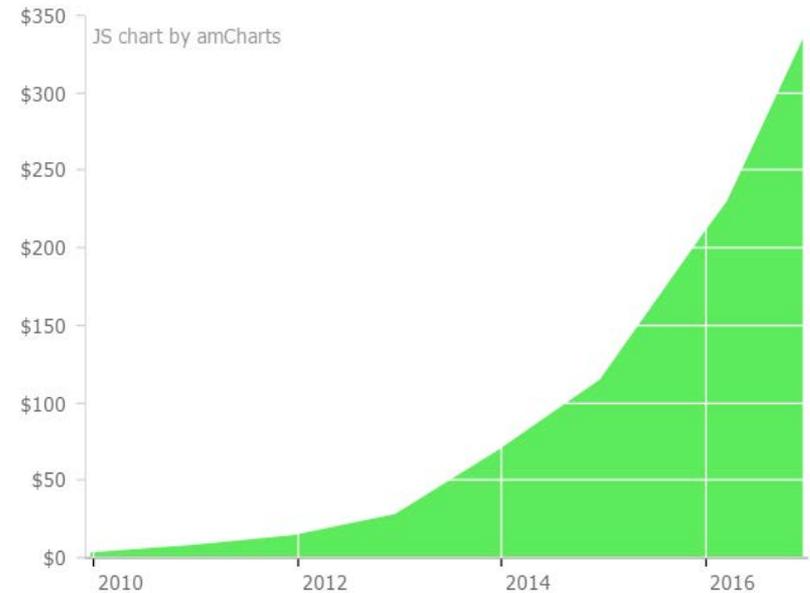
Cumulative R-PACE Financing

2010-2016



Cumulative C-PACE Financing

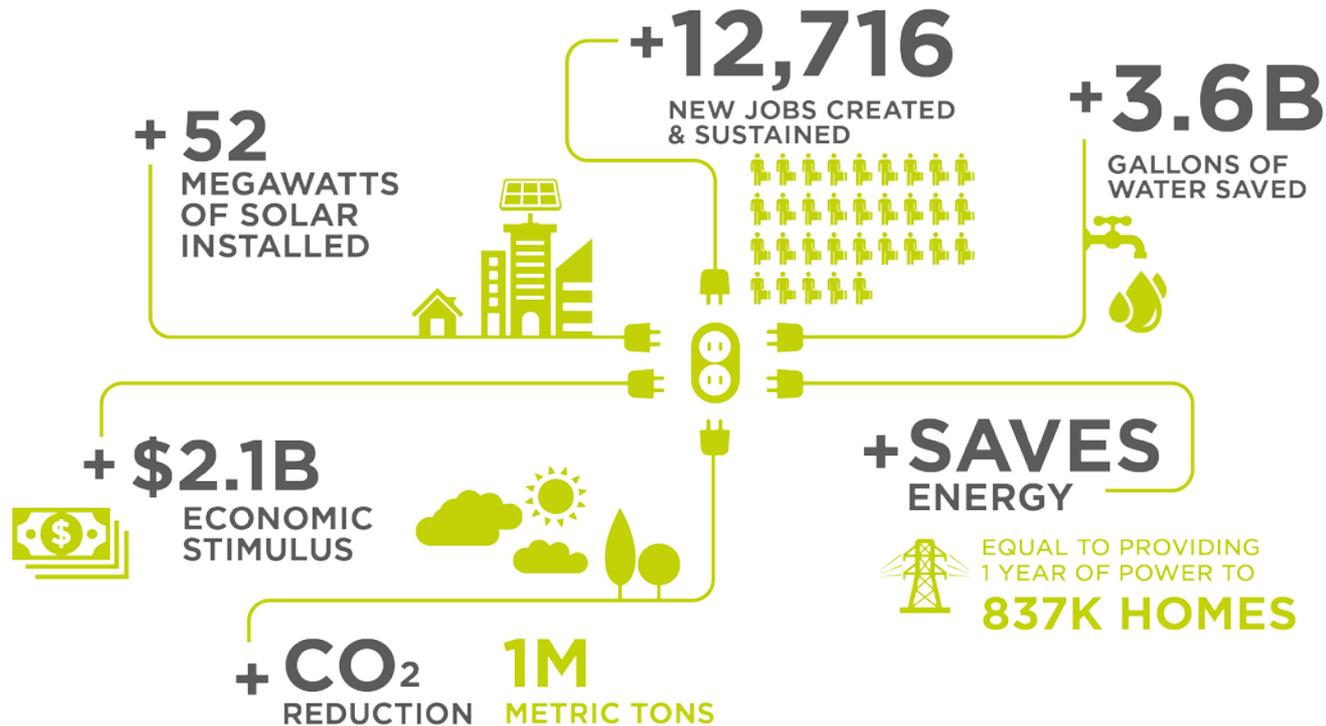
2010-2016



YGRENE IMPACT ON LOCAL COMMUNITIES



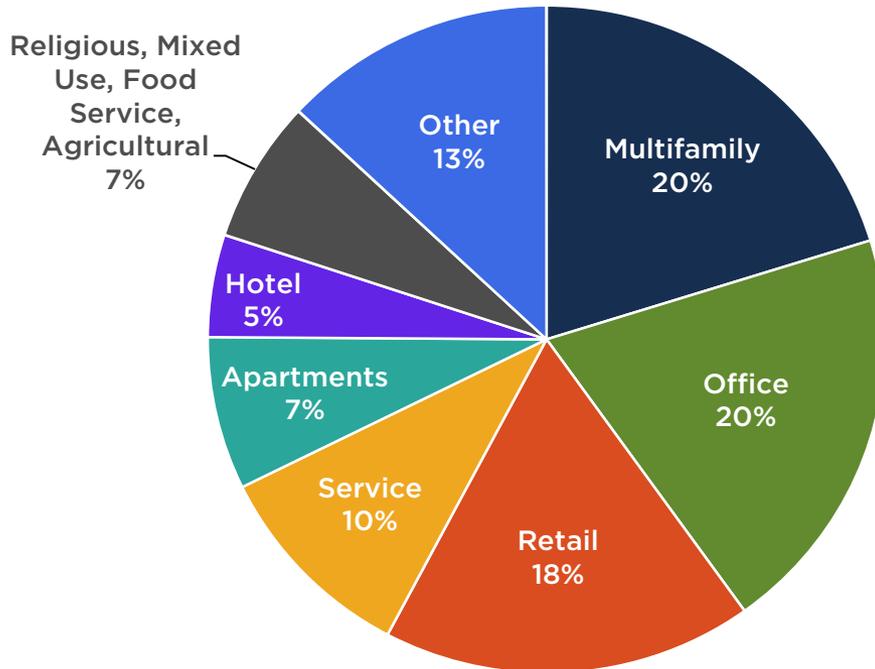
Estimated impact of \$847,719,000¹ in completed energy efficiency, renewable energy, water conservation and climate resiliency property improvements across the U.S.



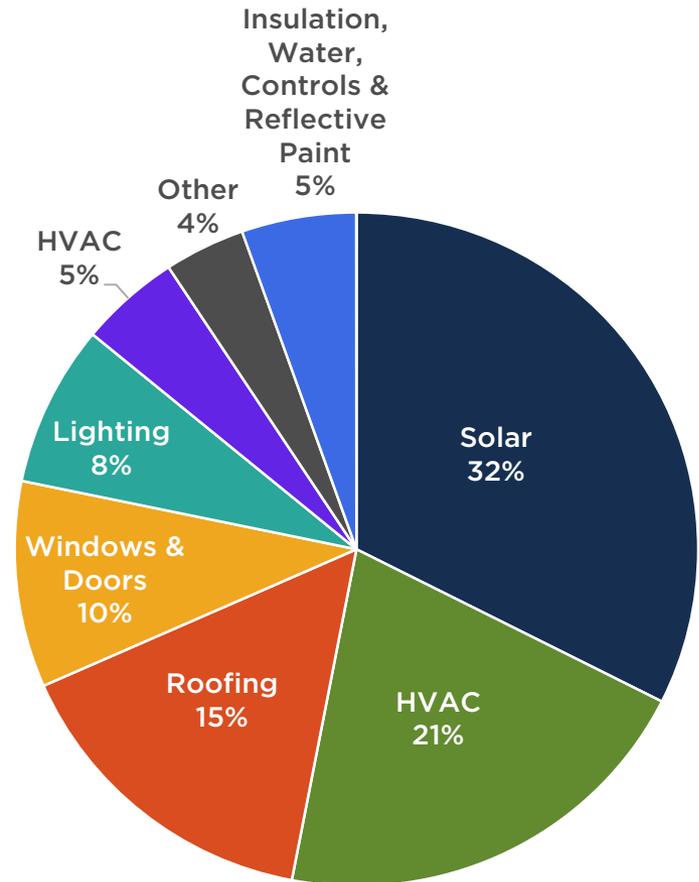
Ygrene proprietary model based on data sourced primarily from ECONorthwest Economic Impact Analysis of PACE Programs.

¹Represents total dollar amount (rounded to the nearest \$100K) of PACE contracts completed by Ygrene as of 4/30/17.

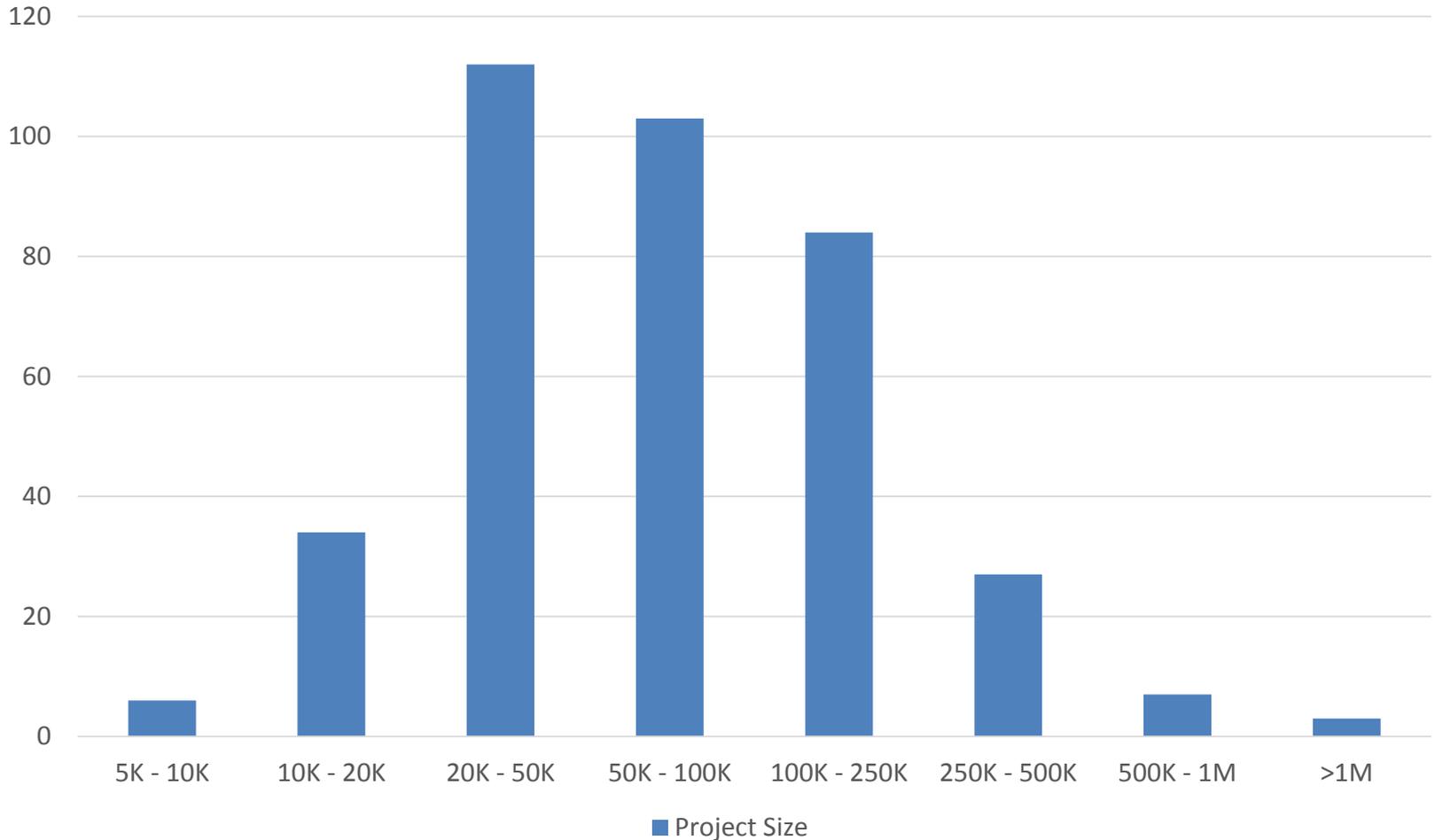
Building Types



Improvement Types



370+ C-PACE projects completed



YGRENE 370+ C-PACE PROJECTS COMPLETED



Gateway Oaks



Capitol Mall



Dixie Highway



Fulton Ave



Marconi Street



Bowling Drive



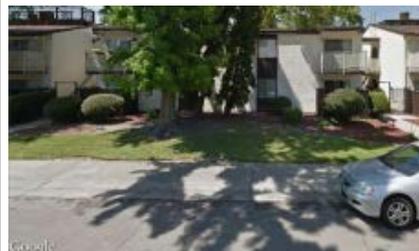
Sun Tree - 78 units



Sunrise Blvd - 60 Units



4th Street - 6 units



Windward - 84 units



Ridgeside - 96 units



1st Ave - 6 Units

Property Owner Advantages

- 100% financing
- Long term, fixed rates (20-year+)
- Off balance sheet, non-recourse
- Pass through under most net leases
- Increase property value and retain working capital w/zero capital outlay
- Lowers overall cost of capital as equity is replaced with long term debt
- Enables reallocation of cash to other capital investments

Transparent Underwriting

- Finance up to 15% of FMV
- Minimum 10% available equity
- Mortgage and property taxes current at approval
- Not in bankruptcy
- No involuntary liens
- No personal guarantees, financial statements or rent rolls required
- Approval in 5 business days



“My company wants to invest in high-return projects to improve our business BUT...I can raise corporate debt at a 4% interest rate. Why should I use PACE at 7% to complete my project?”

- Most large project financing requires a mix of debt and equity
 - Debt (bank loans)
 - Equity (cash)
- True cost of capital is the **weighted average cost of debt and equity**

Let's assume a typical project...

60% debt @ 4%

40% equity @ 20%

Weighted cost of capital = 10.4%

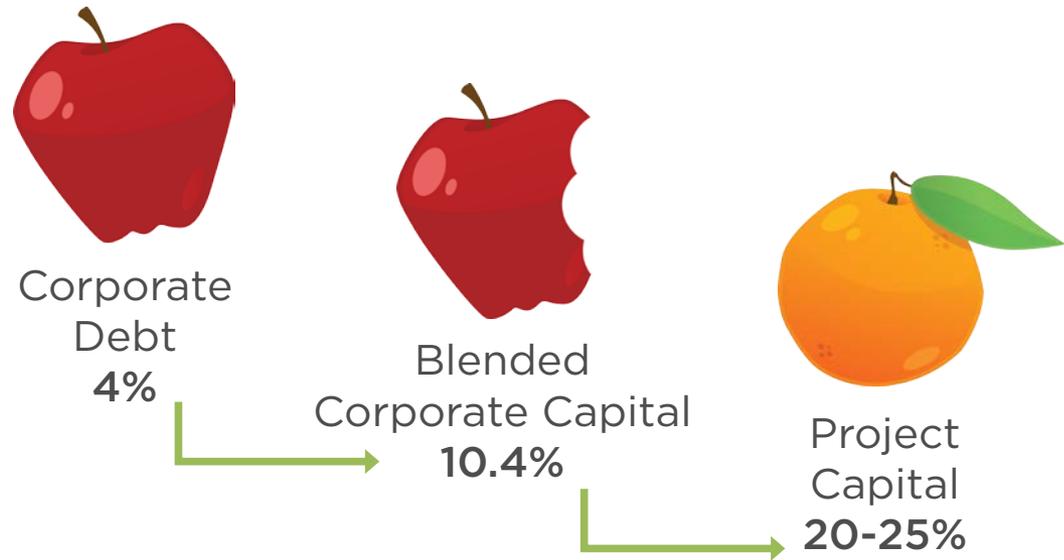
PACE is 100% financing

PACE cost of capital = 7%

PROJECT CAPITAL AT MUCH LOWER COST



- Limited corporate capital is rationed out via a 'hurdle rate'
- PACE allows for more positive return projects to be undertaken at a cost well below your corporate cost of capital (effectively lowering your hurdle rate)



“PACE can finance projects that would never be funded due to not meeting hurdle rate, but which generate free cash flow for your company. You really should use as much of it as you can get.”

Simon Properties, Largest U.S. REIT
Owner of 100+ Simon Mall properties

Sacramento Metro Center California

- Chiller
- Cooling Tower
- Water Treatment System
- Equipment + Lighting Control System

\$140,000 annual energy savings
Significant annual operating savings

Project Goals

Attain LEED® certification, reduce energy and operating expenses, improve building comfort



\$3.16 million
PROJECT VALUE

27%
ENERGY SAVINGS

Sandpiper Apartments

California

- Energy Efficient Windows
- Sliders
- LED Lighting

80 unit gated apartment community

Project Goals

Reduce operating costs, maximize rents, preserve capital, increase tenant satisfaction and comfort



\$136,000

PROJECT VALUE

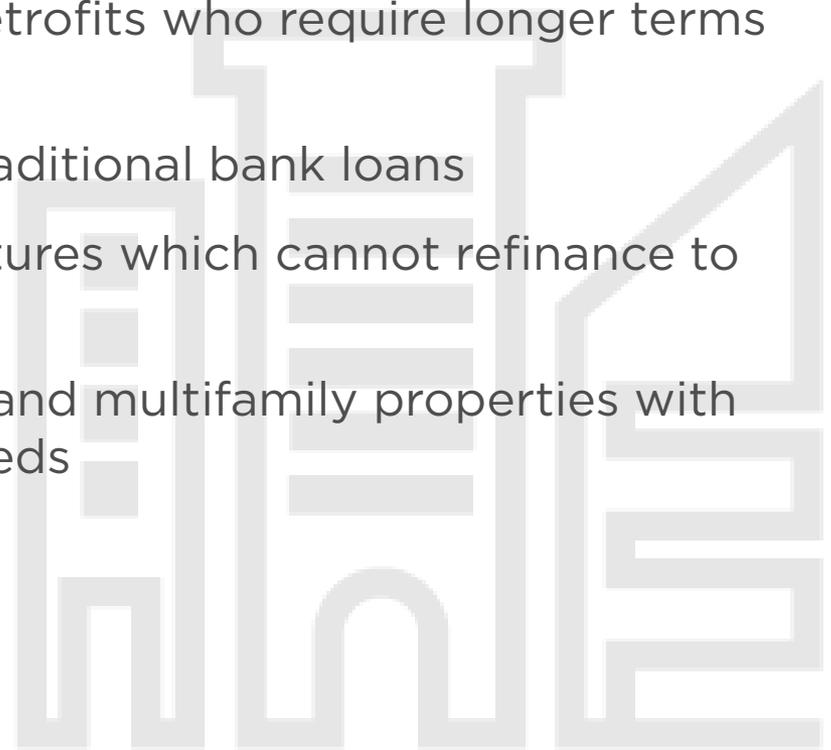
21%

ENERGY SAVINGS

WHO BENEFITS MOST? KEY LESSONS



- Any property with positive cash-flow investment opportunities that fall below hurdle rate
- Properties with commercial tenants (passing through the assessment)
- Properties with urgent/mandated retrofits who require longer terms and time to pay
- Properties who do not qualify for traditional bank loans
- Properties with complex debt structures which cannot refinance to accomplish basic EE/RE upgrades
- Small to medium sized commercial and multifamily properties with lower, minimum funding amount needs



Imagine what we can do.





URBAN INGENUITY

★**DC**PACE
★
★
A CLEAN ENERGY FINANCE SOLUTION
DEPARTMENT OF ENERGY AND ENVIRONMENT

*Financing energy, water,
and infrastructure upgrades*

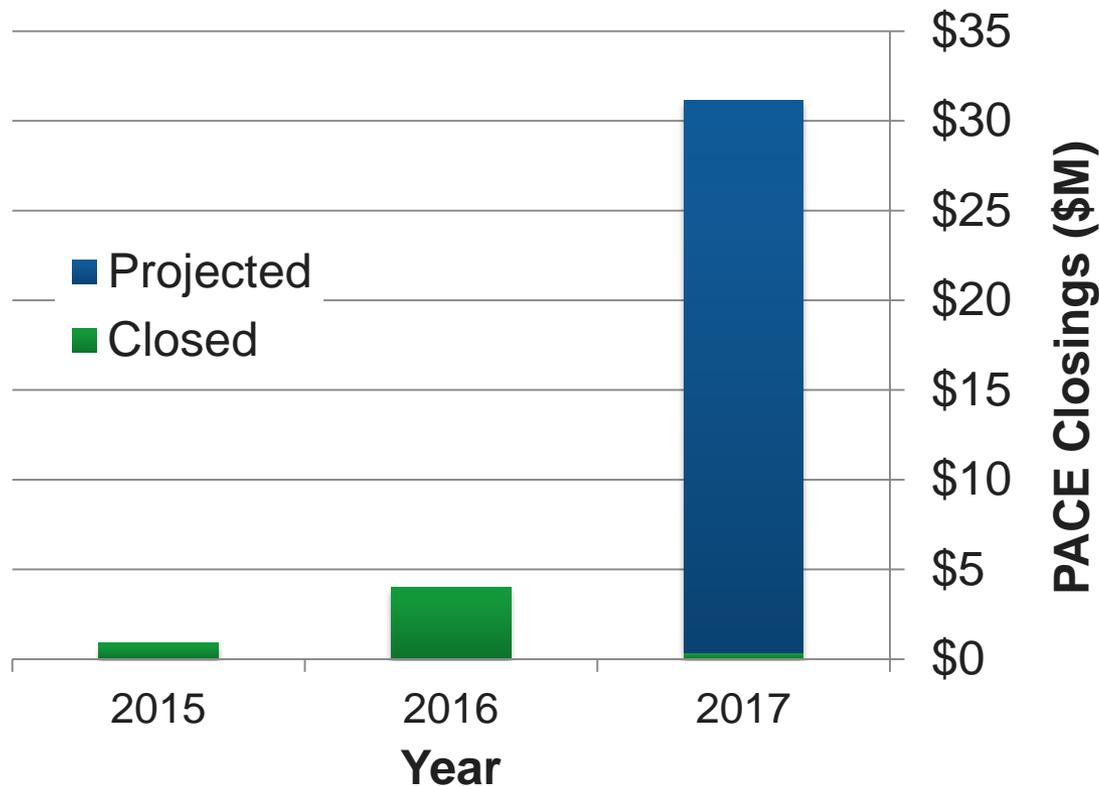
Better Buildings Summit, May 2017

DC PACE: A Growing Program



DC PACE is the District's only clean energy financing program for building upgrades.

Urban Ingenuity is the DC PACE program administrator, under contract to DOEE



Milestones:

- \$5M+ funded
- First PACE for affordable housing
- First tax-exempt PACE
- First HUD approval of PACE

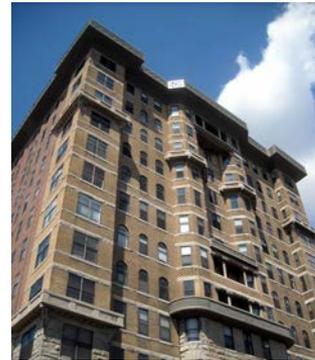
Who is the PACE customer?



Office



Institutional



Multifamily



Industrial

Customer Class

Operating budget constrained (small business, portfolio owners)

Capital budget constrained (non-profits)

Better use for capital or debt capacity (sophisticated owners, large institutions)

Developers

Challenge Resolved

Long term aligns payments with savings

Zero dollars out-of-pocket

Displace equity, off-balance sheet doesn't impact credit / bonding ability

Layer in the stack / gap-filler for gut rehabs, new construction

PACE in the Capital Stack: *Case Study*

Uses	
Hard Costs	\$30,000,000
Soft Costs	\$3,000,000
Total Costs	\$33,000,000

Sources	
Equity	\$4,000,000
Debt	\$27,000,000
Total Sources	\$31,000,000
Gap	\$2,000,000

Options for addressing a \$2M gap...

- 1. Do Nothing:** *Project stalls or dies*
- 2. Owner's Equity:** *High opportunity costs*
- 3. Value Engineering:** *Lock in high operating costs*
- 4. PACE:** *Increase NOI & Displace equity*

PACE in the Capital Stack: *Sizing the Financing*

ECMS	Cost
Lighting	\$150,000
Water conservation	\$150,000
HVAC improvements	\$1,350,000
Controls	\$100,000
Roof rehab	\$250,000
350 kW solar	\$1,000,000
Total	\$3,000,000

Annual Savings	
Utility Savings	\$110,000
O&M Savings	\$80,000
Solar (Energy + RECs)	\$120,000
Total	\$310,000

PACE Eligibility

- Savings can offset annual payments up to \$310,000
- That finances up to \$3,800,000 (20 year term)

Note: Project financials have been simplified for illustrative purposes.

PACE in the Capital Stack: *Filling a Gap*

Uses	
Hard Costs	\$30,00,000
Soft Costs	\$3,000,000
Solar	\$1,000,000
Total Costs	\$34,000,000

Sources	
Equity	\$4,000,000
Debt	\$27,000,000
PACE	\$3,000,000
Total Sources	\$34,000,000

Options for addressing a \$2M gap...

1. **Do Nothing:** *Project stalls or dies*
2. **Owner's Equity:** *High opportunity costs*
3. **Value Engineering:** *Lock in high operating costs*
4. **PACE:** *Increase NOI & Displace equity*



PACE in the Capital Stack: *Increasing NOI*

- PACE eligibility: \$3,800,000 (20 year term)
- Actual PACE amount: \$3,000,000
- Actual PACE payments: \$240,000

- Improved building performance, lower operating costs, and improved NOI for owner
- PACE includes cost of structural improvements, key infrastructure upgrades with no out-of-pocket cost

Average Annual Cash Flow	
Utility Savings	\$110,000
O&M Savings	\$80,000
Solar (Energy + RECs)	\$120,000
Total Savings	\$310,000
PACE Payments	-\$240,000
Net Cash Flow	\$70,000

PACE in the Capital Stack: *Displacing Equity*

	Self-Funded	PACE
Investment by Property Owner	\$3,000,000	\$0.00
Annual Benefits	\$310,000	\$310,000
Annual PACE Payment	\$0.00	\$(240,000)
Net Benefit Year 1	\$(2,690,000)	\$70,000
Annual Net Benefit Years 2-20	\$310,000	\$70,000
5-year NPV of Cash Flows (@ 6% discount rate)	\$(1,524,000)	\$295,000
10-year NPV of Cash Flows (@ 6% discount rate)	\$(549,000)	\$515,000
5-year IRR	-19%	Infinite
10-year IRR	1%	Infinite

PACE is a valuable tool for development projects!

Lessons Learned

Building pipeline

- Market segmentation
- Contractor and channel partner networks

Project development

- Screening tools and processes
- Time of engagement

Improving the PACE Product

- Flexible / competitive terms
- Streamlined application and approvals



Thanks!

Bracken Hendricks

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Questions?

Thank You

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