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


Primary authors
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Charles Goldman

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ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
Commercial PACE: State-by-State

Credit: PACENation, April 2017
C-PACE
A Capital Opportunity

Stacey Lawson
Ygrene Energy Fund

Better Buildings Summit
May 2017
ABOUT YGRENE

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 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
2016 PACE Industry volume = ~$2.5B
2017 projected PACE volume = ~$4B

Source: PACENation
YGRENE IMPACT ON LOCAL COMMUNITIES

Estimated impact of $847,719,000\(^1\) in completed energy efficiency, renewable energy, water conservation and climate resiliency property improvements across the U.S.

- +52 MEGAWATTS OF SOLAR INSTALLED
- +$2.1B ECONOMIC STIMULUS
- +CO\(_2\) REDUCTION
- +12,716 NEW JOBS CREATED & SUSTAINED
- +3.6B GALLONS OF WATER SAVED
- +SAVES ENERGY EQUAL TO PROVIDING 1 YEAR OF POWER TO 837K HOMES
- 1M METRIC TONS

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

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

- Multifamily: 20%
- Office: 20%
- Retail: 18%
- Service: 10%
- Apartments: 7%
- Hotel: 5%
- Religious, Mixed Use, Food Service, Agricultural: 7%
- Other: 13%

**Improvement Types**

- Solar: 32%
- HVAC: 21%
- Roofing: 15%
- Windows & Doors: 10%
- Lighting: 8%
- Insulation, Water, Controls & Reflective Paint: 5%
- Other: 4%
- HVAC: 5%
- Insulation, Water, Controls & Reflective Paint: 5%
YGRENE C-PACE PORTFOLIO

370+ C-PACE projects completed

![Bar chart showing the distribution of project sizes. The chart indicates that most projects fall in the 20K - 50K range, with fewer projects in the larger size categories.]
**YGRENE 370+ C-PACE PROJECTS COMPLETED**

<table>
<thead>
<tr>
<th>Gateway Oaks</th>
<th>Capitol Mall</th>
<th>Dixie Highway</th>
<th>Fulton Ave</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marconi Street</td>
<td>Bowling Drive</td>
<td>Sun Tree – 78 units</td>
<td>Sunrise Blvd – 60 Units</td>
</tr>
<tr>
<td>4th Street – 6 units</td>
<td>Windward – 84 units</td>
<td>Ridgeside – 96 units</td>
<td>1st Ave – 6 Units</td>
</tr>
</tbody>
</table>
C-PACE FINANCING: FASTER, SIMPLER, BETTER

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
TRUE COST OF CAPITAL

“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%
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.
Financing energy, water, and infrastructure upgrades

Better Buildings Summit, May 2017
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?

<table>
<thead>
<tr>
<th>Customer Class</th>
<th>Challenge Resolved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating budget constrained (small business, portfolio owners)</td>
<td>Long term aligns payments with savings</td>
</tr>
<tr>
<td>Capital budget constrained (non-profits)</td>
<td>Zero dollars out-of-pocket</td>
</tr>
<tr>
<td>Better use for capital or debt capacity (sophisticated owners, large institutions)</td>
<td>Displace equity, off-balance sheet doesn’t impact credit / bonding ability</td>
</tr>
<tr>
<td>Developers</td>
<td>Layer in the stack / gap-filler for gut rehabs, new construction</td>
</tr>
</tbody>
</table>

**Office**

**Institutional**

**Multifamily**

**Industrial**
# PACE in the Capital Stack: Case Study

<table>
<thead>
<tr>
<th>Uses</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Costs</td>
<td>Equity $4,000,000</td>
</tr>
<tr>
<td>Soft Costs</td>
<td>Debt $27,000,000</td>
</tr>
<tr>
<td>Total Costs</td>
<td>Total Sources $31,000,000</td>
</tr>
<tr>
<td></td>
<td>Gap $2,000,000</td>
</tr>
</tbody>
</table>

**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*

*Note: Project financials have been simplified for illustrative purposes.*
### PACE in the Capital Stack: *Sizing the Financing*

<table>
<thead>
<tr>
<th>ECMS</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting</td>
<td>$150,000</td>
</tr>
<tr>
<td>Water conservation</td>
<td>$150,000</td>
</tr>
<tr>
<td>HVAC improvements</td>
<td>$1,350,000</td>
</tr>
<tr>
<td>Controls</td>
<td>$100,000</td>
</tr>
<tr>
<td>Roof rehab</td>
<td>$250,000</td>
</tr>
<tr>
<td>350 kW solar</td>
<td>$1,000,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,000,000</strong></td>
</tr>
</tbody>
</table>

### Annual Savings

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility Savings</td>
<td>$110,000</td>
</tr>
<tr>
<td>O&amp;M Savings</td>
<td>$80,000</td>
</tr>
<tr>
<td>Solar (Energy + RECs)</td>
<td>$120,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$310,000</strong></td>
</tr>
</tbody>
</table>

- 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.
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

Note: Project financials have been simplified for illustrative purposes.
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

**Average Annual Cash Flow**

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<tr>
<td>Total Savings</td>
<td>$310,000</td>
</tr>
<tr>
<td>PACE Payments</td>
<td>-$240,000</td>
</tr>
<tr>
<td><strong>Net Cash Flow</strong></td>
<td><strong>$70,000</strong></td>
</tr>
</tbody>
</table>

- 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

*Note: Project financials have been simplified for illustrative purposes.*
<table>
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<tr>
<th></th>
<th>Self-Funded</th>
<th>PACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment by Property Owner</td>
<td>$3,000,000</td>
<td>$0.00</td>
</tr>
<tr>
<td>Annual Benefits</td>
<td>$310,000</td>
<td>$310,000</td>
</tr>
<tr>
<td>Annual PACE Payment</td>
<td>$0.00</td>
<td>$(240,000)</td>
</tr>
<tr>
<td>Net Benefit Year 1</td>
<td>$(2,690,000)</td>
<td>$70,000</td>
</tr>
<tr>
<td>Annual Net Benefit Years 2-20</td>
<td>$310,000</td>
<td>$70,000</td>
</tr>
<tr>
<td>5-year NPV of Cash Flows (@ 6% discount rate)</td>
<td>$(1,524,000)</td>
<td>$295,000</td>
</tr>
<tr>
<td>10-year NPV of Cash Flows (@ 6% discount rate)</td>
<td>$(549,000)</td>
<td>$515,000</td>
</tr>
<tr>
<td>5-year IRR</td>
<td>-19%</td>
<td>Infinite</td>
</tr>
<tr>
<td>10-year IRR</td>
<td>1%</td>
<td>Infinite</td>
</tr>
</tbody>
</table>

PACE is a valuable tool for development projects!

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<table>
<thead>
<tr>
<th>Building pipeline</th>
<th>Project development</th>
<th>Improving the PACE Product</th>
</tr>
</thead>
</table>
| • Market segmentation  
• Contractor and channel partner networks | • Screening tools and processes  
• Time of engagement | • Flexible / competitive terms  
• Streamlined application and approvals |
Thanks!

Bracken Hendricks
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Questions?
Thank You

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