Pace Financing for Energy Efficiency: Success Stories

October 7, 2014
3:00-4:00 PM EDT
Overview and Agenda

- Welcome and Overview
- Clean Fund
- City of Milwaukee
- Hilton Los Angeles/Universal City
- Additional Resources
- Question & Answer Session
# Today’s Presenters

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
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<tbody>
<tr>
<td>John Kinney</td>
<td>Clean Fund</td>
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<tr>
<td>Erick Shambarger</td>
<td>City of Milwaukee</td>
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<tr>
<td>Steve Thompson</td>
<td>Hilton Los Angeles/Universal City</td>
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<td>Rahul Young</td>
<td>ICF International</td>
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John Kinney
CEO
John.Kinney@CleanFund.com
Clean Fund
An innovative funding solution for building owners to invest in efficiency improvements.
Energy efficiency still perceived as risky

Energy efficiency not seen as mission critical

EE benefits tenants and future owners at a current cost

Capital constraints force ruthless prioritization decisions
Building owners don’t have compelling reasons to make EE investments.

Real estate values (and our environment) suffer from postponing cash flow positive investments.

Capital budgets redirected towards mission critical projects in their core business.

Deferred maintenance, wasted gov’t subsidies, and frustrated CRE stakeholders.
Implication

Less comfort and higher cost of occupancy.

Fewer buildings are customers for cash-flow positive investments.

Higher risk for mortgage holders.
PRIVATE CAPITAL FOR PRIVATE PROPERTY

Muni finance enabled by tax collections

Investor

Bond Issuer

Real Estate

Property tax obligations are different than debt
Goal is to Make Complex Transactions Easy

Clean Fund aligns all stakeholders for a “win-win”
Building investments make money

Old OpEx  New OpEx  with Clean Fund solution

Savings  PACE  Utilities
CLEAN FUND MARKET TODAY – 19 ACTIVE PROGRAMS
STRAIGHTFORWARD UNDERWRITING

- Project meets local program criteria
- Project increases property value (cash-flow)
- Maximum determined by property value
- Minimum size depends on program expenses
- Clean Fund requires mortgage holders’ approval
## The Clean Fund Solution

<table>
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<tr>
<th>Investment Barrier</th>
<th>Solution</th>
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<tr>
<td>Capital constraints</td>
<td>Up to 100% financing</td>
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<tr>
<td>Benefit alignment</td>
<td>Eligible as pass thru</td>
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<tr>
<td>Uncertain hold time</td>
<td>Transferable financing</td>
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<tr>
<td>Long payback period</td>
<td>Cash flow positive</td>
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<tr>
<td>Covenant compliance</td>
<td>No covenants</td>
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<tr>
<td>Not mission critical</td>
<td>Maintain debt capacity</td>
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SONOMA MOUNTAIN VILLAGE

- $1.6 million PACE financing for portion of 1MW PV
- $200,000 of energy savings
- $150,000 of tax payments
- Building repositioned as clean energy campus
$1.4MM solar and EE project

- No equity required
- Tax up by $130K/year
- Utilities down $130K/year
- Tenants receive prorate benefit
$2MM Energy Efficiency Upgrade
$241,000/year in savings
$166,000/year in new tax
Lender Approval
$2MM impairment avoided
$75,000 savings/year
At 6x cap rate = $1,250,000
WHO TO CHOOSE AS PACE PARTNER

• Go with a leader in commercial PACE
  • Who has a track record?
  • Who is working with programs?

• The Team needs experience in multiple areas
  • Structured Finance
  • Municipal Finance
  • Project Finance

■ Private company with mission-oriented investors
  ■ Low-cost and flexible terms
  ■ National ability to issue PACE bonds
  ■ Maximize value of PACE with other finance tools
Invest in energy efficiency without using equity or creating covenants.

Complete ALL cash flow positive energy improvement measures.

Align expense of improvements with occupants who benefit.
Erick Shambarger
Deputy Director, Office of Environmental Sustainability

City of Milwaukee
Creating Better Buildings with PACE Financing
• Energy efficiency makes older cities more competitive

• Investing in energy efficiency means
  • Local jobs
  • Better Buildings
  • Lower operating costs
  • Better local air quality

• Cities need economic development tools to support existing buildings, not just new development.

• Reallocate budgets currently wasted on excess energy into building improvements that improve living conditions
• Operational savings
• Improved occupant comfort and satisfaction → less complaints
• Tax benefits
• Reduce risk of unexpected breakdowns
Property Assess Clean Energy (PACE) Financing provides funds to participating commercial building owners to make energy efficiency, water efficiency, and clean energy projects like:

- New boilers
- New chillers
- Advanced building controls
- Solar Energy
- Lighting
- Other permanently fixed energy-saving improvements
PACE makes private loan capital available to Milwaukee building owners via public/private partnership

- Loans are provided by private investors

- Payments for the improvements are collected from participating buildings by the City through a voluntarily-assumed municipal special charge

- Special Charge is collected on the annual property tax bill

Benefits to Building Owner, Tenants, and the Community
ELIGIBILITY

• Existing commercial building located in the City of Milwaukee
• No property tax delinquencies in the past three years
• No bankruptcy or administrative judgments
• Max PACE project size: 20% of Property Value
• Must use Participating Me2 Commercial Contractor → support of local jobs
• Energy Savings Performance contract for projects $250,000+
• Existing Lien Holder Acknowledgement
• Participate in the Better Buildings Challenge
APPLICATION

1. Visit SmartEnergyPays.com for program information and list of Participating Contractors

2. Submit PACE Interest Form

3. Develop your project with Participating Me² Contractor

4. Submit PACE Application with defined project

5. Get lien holder(s) acknowledgement/consent

6. Close loan with City and Lender, such as Milwaukee Economic Development Corporation.
Lender: Milwaukee Economic Development Corp.
PACE Equity was project developer, using 5 installation contractors
Scope: HVAC, Windows, Lighting, Steam Traps
Project Size $662,000
Amortization: 18 years
Annual payment: $62,000
Annual Guaranteed Savings: $56,000
• Patience- especially on first project

• Sync lender underwriting requirements with City underwriting and associated customer forms/information requests

• Manage expectations

• Think through and clarify scenarios for customer defaults
• Cut energy use by 20% by the year 2020
• Gain public recognition for your efforts
• Attract tenants
• Free tools to track and manage your energy use
• PACE financing makes energy efficiency MAKE SENSE
11 pledges received, plus City government facilities

6.5 million square feet

city.milwaukee.gov/BBC
Erick Shambarger
Deputy Director
414-286-8556
eshamb@milwaukee.gov
city.milwaukee.gov/sustainability
Hilton Los Angeles/Universal City Hotel

- Built in 1983
- 24 stories/489 rooms
- 748,339 ft² facility
- AAA 4 Diamond Full Size Service Hotel
- Located a block away from the entrance to City Walk and Universal Studios Hollywood theme park
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<th>TYPE</th>
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<th>2013 Waste Management Stats</th>
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<tr>
<td>Comingle</td>
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<td>Cardboard</td>
<td>21.23tns</td>
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<tr>
<td>Room Amenities</td>
<td>3.27tns</td>
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<td>Appliances</td>
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<td>E-waist</td>
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<td>Toner cartridges</td>
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<td>Laundry Drums</td>
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<td>Aerosol Cans</td>
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<td>Lamps</td>
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<td>Kitchen oil</td>
<td>5.94tns</td>
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<tr>
<td>Sub-Total</td>
<td>58.75tns</td>
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<td><strong>Tons Diverted from Landfill</strong></td>
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<td><strong>803.20 (86%)</strong></td>
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<tr>
<th>TYPE</th>
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<th>Total Recovered</th>
<th>TOTAL</th>
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<td>Food</td>
<td>777.46tns</td>
<td>661.94tns</td>
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<td>Construction/Demo Debris</td>
<td>77.56tns</td>
<td>74.64tns</td>
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<td>Trash</td>
<td>8.53tns</td>
<td>0.77tns</td>
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<td>Green Waste</td>
<td>5.79tns</td>
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<td>Hand Sort</td>
<td>4.38tns</td>
<td>1.31tns</td>
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<td>Sub-Total</td>
<td>873.72tns</td>
<td>744.45tns</td>
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Sustainability Reporting
History

• 2001 Started first commingle recycling program.
• 2009-2010 Green Seal “Bronze” Level
• 2010-2011 Green Seal “Silver” Level
• 2011-2013 Green Seal “Silver” Level
• 2013 California Green Lodging “Environmentalist”
• 2013 TripAdvisor/greenleaders “Gold” Level
• 2014 TripAdvisor/greenleaders “Gold” Level
• 2013-2014 LAPACE-Energy Upgrades
Largest Commercial PACE Project in the U.S.:
The Hilton Los Angeles/Universal City completes $7 million upgrade
2013-2014

• Chillers/BAS Replacement
• Elevator Modernization
• Front of the House LED Lighting Retrofitting
• Back of the House New Generation Fluorescent Lamp Retrofitting.
• Guest room HVAC Motor Replacement
• Guest Room Window Tint Film Installation
• Guest/Bathrooms Showerheads replacement
• Smart Glass Installation in key areas
• Ballroom Foyer HVAC Upgrade
• Dual EV Charger Unit Installation
Chillers/BAS Replacement

Previous:
• TRANE 475 tons Water Cooled Centrifugal Chillers-non variable speed driven

Replacement:
• YORK 450 tons Centrifugal Variable Speed Driven Chillers
• Premium Efficient Motors and CDW Pumps
• HVAC new controls
• BAS (Building Automation System) Upgrade

Estimated Annual Energy Use Reduction: 2,744,458 KWH x $0.1316/KWh = $361,170.00
Elevator Modernization
(8 Traction & 6 Hydraulic)

• Regenerative drive cars for 8 Traction Elevators that save up to 50 percent energy over conventional systems. 8 30hp motors eliminated
• Elevator produce power in the down direction
  The energy generated when the cab goes into braking mode is converted into electricity and fed into the building’s system.
• LED lighting retrofitting
Light Retrofitting (12M+ lamps)

**FRONT OF THE HOUSE:**
- Public Areas
- Guest Tower and Corridors
- Ballrooms
- Meeting rooms
- Food Outlets
- Fitness & Bus. Center

**BACK OF THE HOUSE:**
- Corridors
- Kitchens
- Restrooms
- Offices
- Garage Parking Levels

- TCP LED Elite Designer Series
- Standard LED Lamps
- Elite LED 4W Deco (Replaces 25W)
- T5 Lamps, Miniature Bi-Pin
- T8 Lamps
- Ballasts
High efficiency EC (Electrically Commutated) Motors use heavy duty rare earth magnets rather than dual electromagnets. This reduces power as well as wasted heat energy allowing refrigeration motors to have a double impact on energy savings.
**Guest/Bathroom Showerheads Replacement**

**Estimated Yearly Water Savings**

**Existing:** 2.5 gpm

**Formula:**
500 units \( \times \) 2.5 \( \times \) 2 guest \( \times \) 10mn \( \times \) 365 days \( \times \) 85% occupancy = 7,756,250 gallons

**New:** 1.75 gpm

**Formula:**
500 units \( \times \) 1.75 \( \times \) 2 guest \( \times \) 10mn \( \times \) 365 days \( \times \) 85% occupancy = 5,429,375 gallons

7,756,250 - 5,429,375 = 2,326,875 gls.

Replaced existing 500 units 2.5 gpm for 1.75 gpm
Guestroom Window Tint Film

High Performance OptiTune 22 Film

• It combines high solar energy rejection with low internal reflectance, making it ideal for commercial installations.
• It reduces up to 87% of glare, rejects up to 85% of solar energy, blocks 99% of UV radiation, and provides a warm neutral appearance.
• The Data Logger Assessment results showed a reduction of up to 38° of heat inside guestrooms during heavy sunny days reducing A/C use.

Scope of Work Done:
• 2,416 panes of all room view panes
Smart Glass Installation

Installed View Dynamic Glass that automatically transitions between clear and variable tint, providing control over the amount of light, glare and heat reducing AC costs.

In addition, these installs have reduced the impact of UV rays from sunlight in these areas and increased guest satisfaction.
View Dynamic Glass transitions between clear and variable tint states

When glass is in the clear state more visible light and heat goes thru

When glass transition to tinted state less visible light goes thru
Ballroom Foyer HVAC Upgrade

Replaced the existing fans power boxes at foyer-interface w/control system-mechanical/electrical and plumbing included to add HVAC balance in Ballroom Foyer.
Dual EV Charger Unit Installation

- To attract more eco-friendly travelers
- To meet the green demand for EV stations
- To set a good example and exercise our strong position in environmental responsibility

ChargePoint CT4023 Wall Mount Dual Port

Existing Location
Rahul Young
Vice President

ICF International
Better Buildings Challenge Financial Allies

- Highlighting and connecting providers of innovative energy efficiency financing products.
- Currently 20+ active BBC Financial Allies
- All Allies commit to place $25M+ in energy efficiency financing over the next 12 months.
- BBC spotlights financing implementation models, connects Allies with interested Partners, and publicizes completed deals.
- Contact: Rahul Young, ICF—rahul.young@icfi.com.
BBC Financial Allies have placed over $1.7B in financing since the beginning of the Better Buildings Challenge.
Additional Resources
For More Information

- Clean Fund
  - Commercial PACE Financing at Pier 1 Implementation Model
  - Prologis Pier 1 Energy Efficiency Upgrade

- City of Milwaukee
  - PACE Financing Implementation Model
Question & Answer Session
Join Us for the Next Better Buildings Webinar

Finding the Next Big Thing(s) in Building Energy Efficiency: HIT Catalyst and the Technology Demo Program

Date: Tuesday, November 4
Time: 3:00 – 4:00 PM EDT

Overview: Join Better Buildings program participants who are working with U.S. Department of Energy staff to test promising technologies in their buildings. Learn what they are finding and how you can get involved.

Register here.
**Today’s Presenters**

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