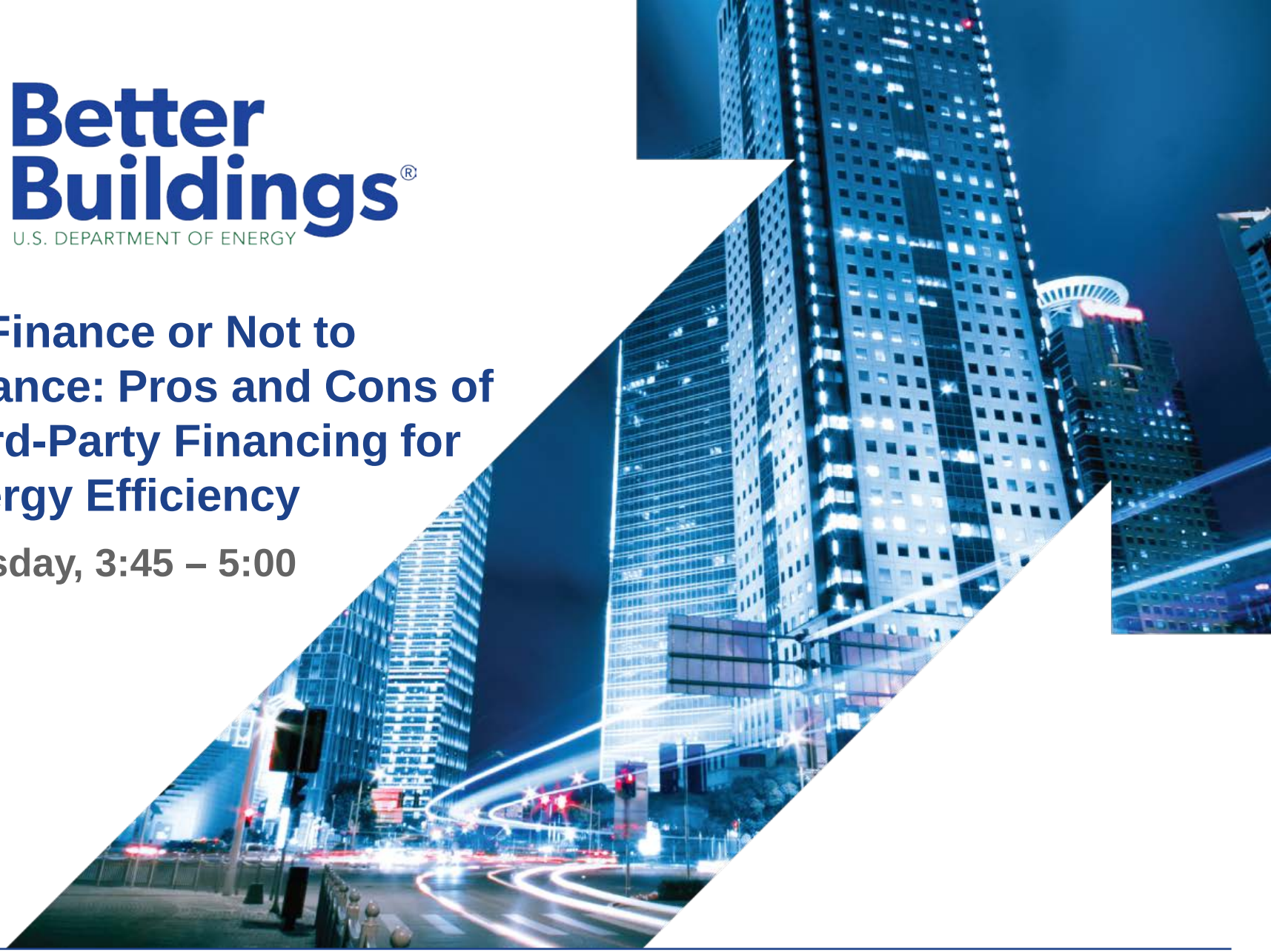
Better Buildings®
U.S. DEPARTMENT OF ENERGY

To Finance or Not to Finance: Pros and Cons of Third-Party Financing for Energy Efficiency

Tuesday, 3:45 – 5:00 PM



U.S. DEPARTMENT OF ENERGY

Third-Party Financing

- Today's speakers:
  - Joyce Ferris, Nextility; Blue Hill Partners
  - Andrew Zech, Greenworks Lending
  - John Krappman, Structured Finance Associates

Better Buildings Summit
May 2016

To Finance or Not to Finance

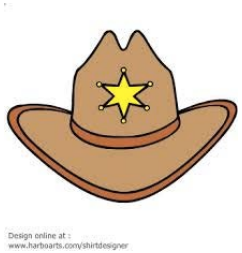
Joyce Ferris
Blue Hill Partners
and Nextility Inc.

BLUE HILL

THREE HATS

Blue Hill Partners

- Managing Partner
- clean energy investment and advisory firm



Forty West Evergreen

-Property Owner

-multi-tenant commercial office building

Nextility

-CFO/COO

-solar developer and energy brokerage firm

-focused on small to mid size commercial buildings

BLUE HILL

investments in energy efficiency companies to date

AIRCUITY

Field Diagnostics

bpl GLOBAL™ BETTER POWER LINES

PRINCETON ENERGY SYSTEMS

performance systems development bringing energy full circle

ENCELIUM

PaceControls PROVEN. PATENTED. GUARANTEED.

and reviewed hundreds of others

EXTENSIVE EXPERIENCE WITH PROPERTY OWNERS

Schools

Colleges and Universities

Government

Office

Small Commercial

Multi-Family

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RECENT FOCUS ON SMALL TO MID-SIZE COMMERCIAL

Small Commercial

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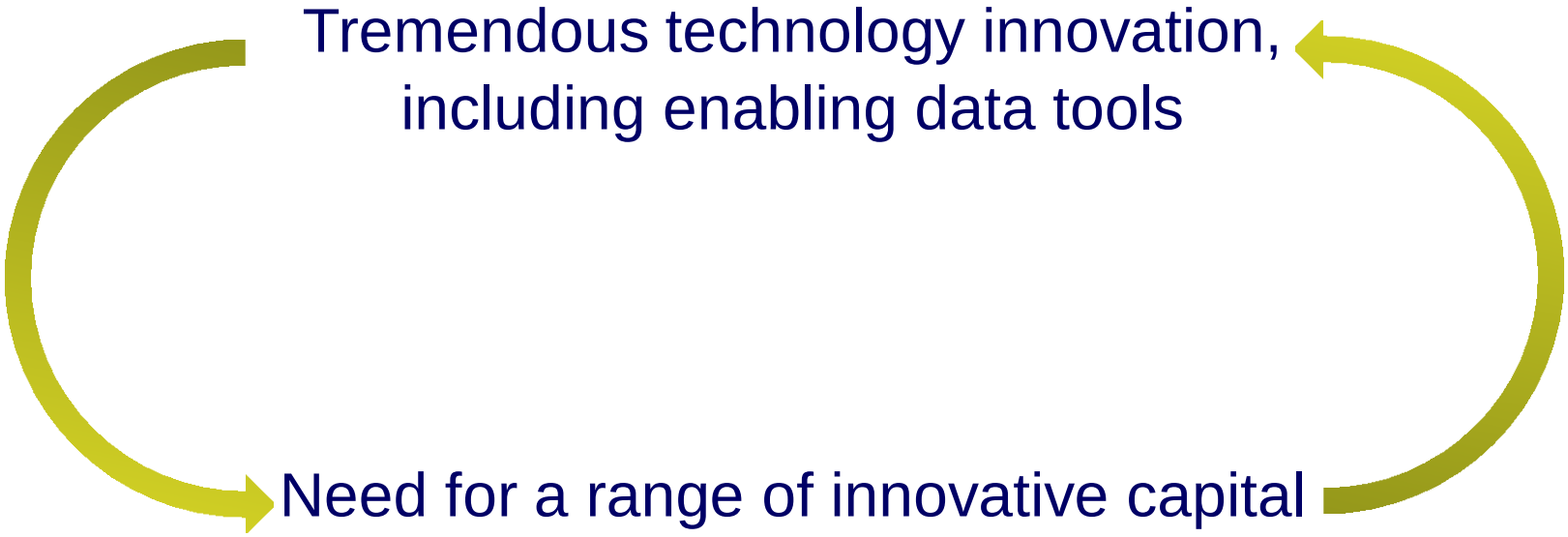
DRIVING EFFICIENCY IN DEPLOYMENT OF EFFICIENCY



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LESSONS LEARNED

Finance solutions need to be suited to the technologies deployed

AND

to the business of the property owner or tenant/energy consumer

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PROPERTY OWNERS PERSPECTIVE

Balance sheet treatment

Cost of capital

Personal guarantees

Credit risk for investors

Performance risk allocation

Simplicity and predictability

Integration with overall business objectives

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RANGE OF OPTIONS

Traditional ESCO's

Single measure service solutions

Multiple measure integrated solutions

Direct loans

Low cost loans, rebates, subsidies

On-bill financing

PACE

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OPTIONS MOST RELEVANT TO COMMERICAL CUSTOMERS

SCO's

ure service solutions

sure integrated solutions

Low cost loans, rebates, subsidies

On-bill financing

PACE

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TWO INNOVATIVE EXAMPLES

On-bill financing – LED Plus

PACE – EE + Solar

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ON-BILL FINANCING FOR SMALL COMMERCIAL

LED PLUS

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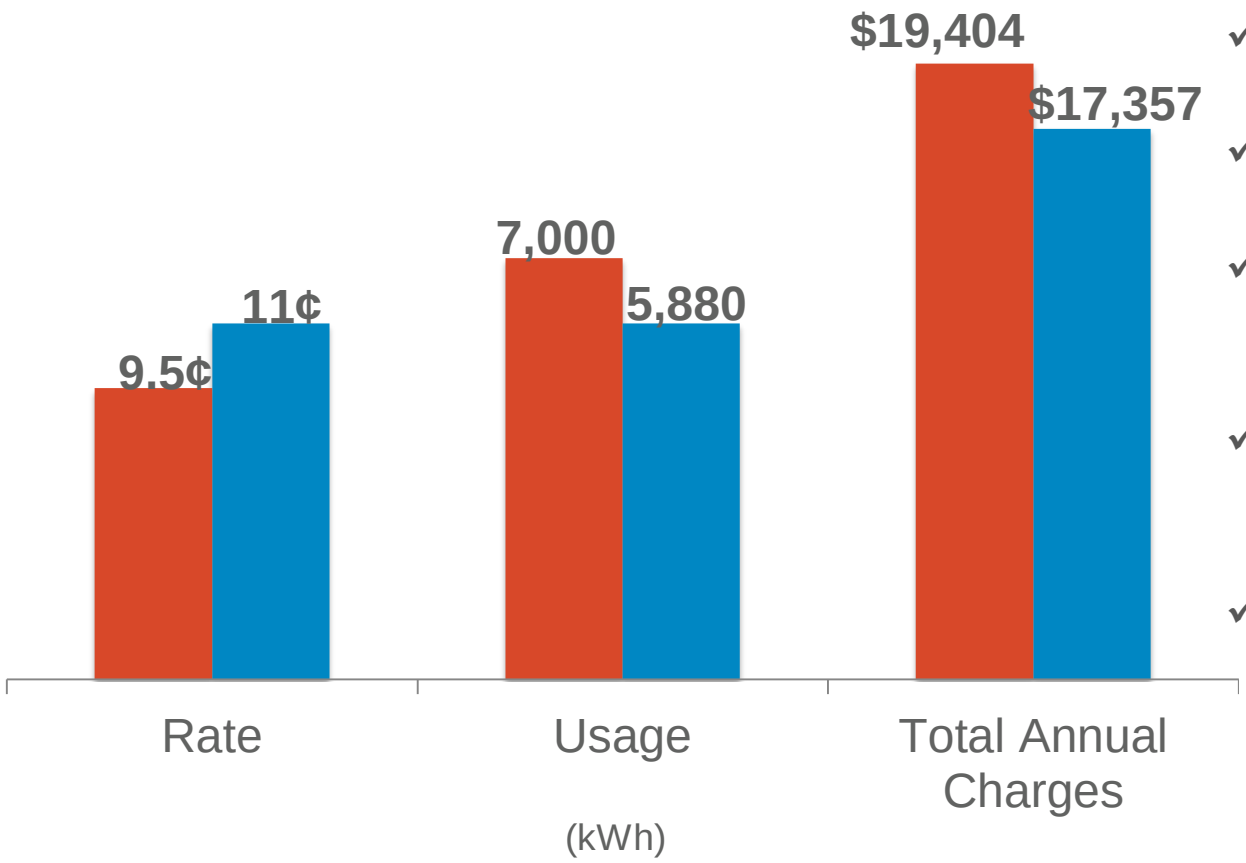
ON BILL FINANCING EXAMPLE

Before and After Impact



- ✓ No Upfront Cost
- ✓ 50 Bulbs Replaced
- ✓ Slight Rate Increase
- ✓ Monthly Usage - 16%
- ✓ $2,047 in Annual Savings

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PACE PROJECT COMBINING EFFICIENCY AND SOLAR

Project: Energy and infrastructure upgrades on four large properties for a prominent church

Challenges:

- Monetize tax benefits from solar PV
- Use savings to finance structural work
- Retire traditional mortgage debt

Solution:

- $3 million in building upgrades, including solar PACE-secured PPA for 300 kW system, partial roof replacements, HVAC upgrades, smart thermostats & controls, LED lighting, low-flow water fixtures

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PACE BENEFITS FOR SMALL COMMERCIAL

Provides credit enhancement –effectively “scrubs” the credit

Favorable cost of capital – at or better than corporate rate

Simplifies underwriting – security is tied to the real estate asset, underlying business is less critical

Eliminates personal guarantees – very valuable to real estate owners

Flexible mechanism – can integrate multiple solutions, also include some roof and infrastructure repairs and upgrades

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Financing Energy & Sustainability Improvements

The Owner's Perspective

DOE 2016 BBC Summit

structured finance ASSOCIATES

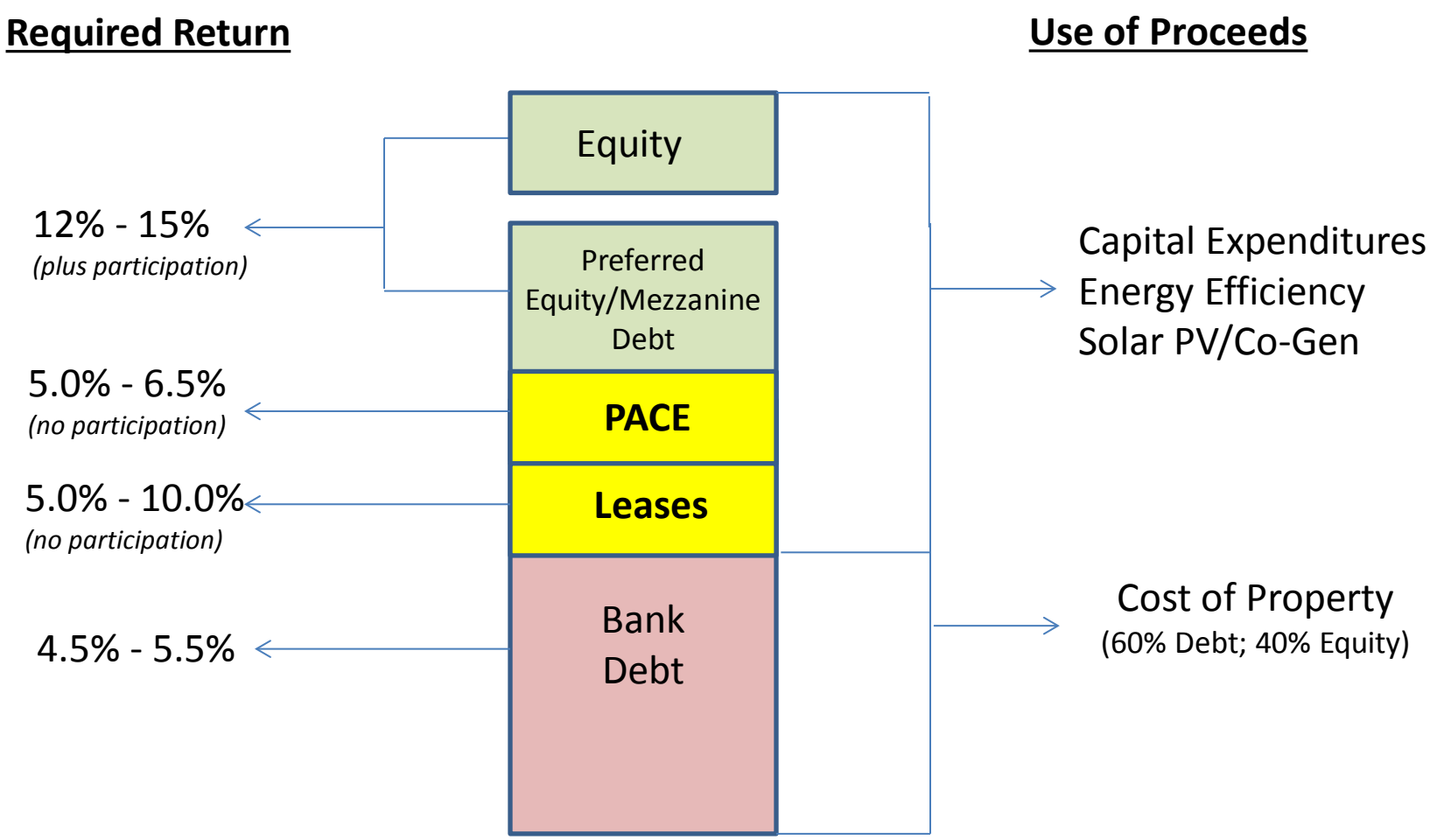
DRIVERS

- **Create Asset Level Value**
- Hedge future energy price increases
- Improve asset competitive position
- LEED Certification
- Improving Energy and Environmental Metrics
- Federal D.O.E. – Better Buildings Challenge
- Energy Efficiency upgrades and retrofits
- Energy related capital improvements
- Simplify compliance with mandated reporting requirements

CREATE VALUE

- **Increase profitability**
- Improve efficiency
- Reduce energy demand
- Reduce O&M expense
- Resolve deferred maintenance issues
- Improve level of service
- Improve customer/employee experience
- Refinance previous energy capital expenditures
- Comply with local, state and federal regulations
- Mitigate increasing utility electric rates

Commercial Real Estate Capital Stack with PACE



Lease PACE Loan

	LEASE	PACE	LOAN
Fixed-rate, long-term financing (up to 25 years)	No	✓	Sometimes
Non-recourse obligation	Sometimes	✓	Sometimes
Payments made with property taxes	No	✓	No
100% financing available	✓	✓	Sometimes
Flexible Structures to accommodate REIT status	✓	✓	✓
Potential "pass-through" to tenants	No	✓	No
Off balance sheet	Sometimes	✓	No
Owner retains all tax incentives and rebates	Negotiated	✓	✓
Approval required upon transfer of the property	Negotiated	✓	No
Multiple financings available on same property	✓	✓	✓
New construction	No	✓	✓
Refinance of improvements previously completed	No	✓	✓
Lowest Cost of Capital	?	?	?


GREENWORKS
LENDING

GREENWORKS LENDING

Greenworks is a rapidly growing company that finances energy-saving upgrades in commercial, industrial, non-profit and multi-family buildings. Our mission is to improve the energy efficiency of our country by creating a new normal for financing energy upgrades in buildings.

PACE IS TRANSFORMING ENERGY EFFICIENCY

Property Assessed Clean Energy (PACE) is a government financing policy that classifies energy-saving upgrades as a **public benefit –** like a sewer, road extension, etc.

100% of hard and soft costs are funded by private capital and repaid via a surcharge on the property tax bill.

Payback periods match equipment life (often 20+ years)...

...this makes **most projects cash flow positive from day one**.

PACE REMOVES BARRIERS

Lack of funding?

Plan to sell building?

Payback period too long?

Tenant pays energy bills?

Unsure if savings will appear?

100% upfront, 20+ year financing

Obligation transfers with property

Positive cash flow in year 1

Assessment/savings pass to tenants

Third party technical review

THE DAY 1 PAYBACK

Sample $2M, Multi-Measure Project w/ ~6.25 Year Simple Payback

	Cash	Bank Loan	PACE Assessment
Down payment amount	($2,000,000)	15% - ($300,000)	**$0**
Loan amount	$0	$1,700,000	**$2,000,000**
Loan term	NA	5 yrs	**20 yrs**
Interest rate	NA	4.50%	**6.25%**
Annual Cash Flow			
Annual payment	NA	($382,295)	($180,978)
Annual energy savings	$320,000	$320,000	**$320,000**
Net annual cash flow	$320,000	**($62,295)**	**$139,022**
5-Year Financial Performance			
5-Year Net Cash Flow	**($720,000)**	**($611,475)**	**$695,110**
5-Year NPV @ 6%	**($840,766)**	**($530,574)**	**$585,611**
5-Year IRR	**-16%**	**NA**	**Infinite**

[1]Assumes no utility cost escalation and no performance degradation to simplify case study

CASE STUDY: THE BUSHNELL CENTER

New hot water heater, three high efficiency boilers and replacement of a single, inefficient steam boiler saved this 95,000sf theater over $1.2M. The theater was pleased with C-PACE's ability to offer an upgrade with no capital outlay at a time when they were searching eBay for spare parts.

Total Project Cost: $650,000
Money Down: $0.00
Incentives: $266,000
C-PACE Financing: $384,000
Term: 20 years
Annual C-Pace Assessment: $30,411

Annual Energy Cost Savings: $58,674

Lifetime Energy Cost Savings: $1,173,479

Hartford, CT

BUSHNELL CENTER **FINANCIAL ANALYSIS**

	Cash Impact		Tax Impact		Net Cash Flow	
Year	PACE Payment	Energy Efficiency Savings	Interest Deduction*	Depreciation Cash Impact	Annual	Cumulative
1	($30,412)	$58,674	$0	$0	**$28,262**	*$28,262*
2	($30,412)	$58,674	$0	$0	**$28,262**	*$56,525*
3	($30,412)	$58,674	$0	$0	**$28,262**	*$84,787*
4	($30,412)	$58,674	$0	$0	**$28,262**	*$113,050*
5	($30,412)	$58,674	$0	$0	**$28,262**	*$141,312*
6	($30,412)	$58,674	$0	$0	**$28,262**	*$169,574*
7	($30,412)	$58,674	$0	$0	**$28,262**	*$197,837*
8	($30,412)	$58,674	$0	$0	**$28,262**	*$226,099*
9	($30,412)	$58,674	$0	$0	**$28,262**	*$254,362*
10	($30,412)	$58,674	$0	$0	**$28,262**	*$282,624*
11	($30,412)	$58,674	$0	$0	**$28,262**	*$310,886*
12	($30,412)	$58,674	$0	$0	**$28,262**	*$339,149*
13	($30,412)	$58,674	$0	$0	**$28,262**	*$367,411*
14	($30,412)	$58,674	$0	$0	**$28,262**	*$395,674*
15	($30,412)	$58,674	$0	$0	**$28,262**	*$423,936*
16	($30,412)	$58,674	$0	$0	**$28,262**	*$452,198*
17	($30,412)	$58,674	$0	$0	**$28,262**	*$480,461*
18	($30,412)	$58,674	$0	$0	**$28,262**	*$508,723*
19	($30,412)	$58,674	$0	$0	**$28,262**	*$536,986*
20	($30,412)	$58,674	$0	$0	**$28,262**	*$565,248*
Subtotals:	($608,232)	$1,173,480	$0	$0	**$565,248**	

Sum of Income and Energy Savings: **$1,173,480**

Sum of Expenses: **($608,232)**

Net Income + Savings: **$565,248**

Savings to Investment Ratio (SIR): **1.93**

PACE IMPROVES MORTGAGE SECURITY

- **Debt Service Coverage Ratio:** Almost all PACE projects have a project DSCR (SIR) >1 and often significantly enhance the building's overall Net Operating Income (NOI).

- **Debt to Value Ratio:** PACE structure ensures value increase far outweighs the debt increase.

  Debt: As a property tax, the annual PACE payment becomes a liability in the year it is due. Mortgage lenders typically add one year's payment to the property debt.

  Value: Projects are almost always accretive to the property value – either via improved cash flow or completion of deferred maintenance projects.

- PACE helps **Defuse the "Deferred Maintenance Time Bomb"** – reducing the mortgage holder's risk from surprise costs that could harm a borrower's ability to pay.

Andrew Zech
azech@greenworkslending.com