International Society of Automation

PACE Energy Efficiency
Project Financing

Presented By:

"An Energy Solutions Company"
PACE
Property Assessed Clean Energy Financing

Better Buildings
Northwest Ohio

Toledo | Lucas County Port Authority
What is PACE?

- Innovative *non-recourse* financing program for energy efficiency & water conservation projects
- Funding covering *100%* of the project costs through a voluntary property improvement tax assessment
- Based on one of the oldest property improvement financing models in the U.S.
What is PACE?

- Legislation enacted by State of Ohio
- Adopted by local governments including counties, cities, and townships (Energy Special Improvement District)
- Long-term, fixed rate, funding, repaid through property taxes
- Savings is greater than cost; includes maintenance & replacement costs
Where is PACE?

- Originated in California in 2009
- Adopted in 32 U.S. States and the District of Columbia
- Has expanded into other countries
Where is PACE?

- Enacted by Ohio in 2010
- Toledo Port Authority was first to create a PACE district
- Projects completed in Ohio……..

Toledo Water Treatment

One Maritime Plaza

Toledo GM Powertrain

Toledo Blade
Why PACE?

✓ Non Recourse → Can be treated as off balance sheet financing
✓ Property assumes debt not property owner
✓ Transfers with property upon sale and does not require payoff
✓ Does not affect property owners credit or borrowing power
Why PACE?

✓ As with any property tax, PACE tax assessment takes senior lien position

✓ No up front capital required → 100% of all costs covered

✓ Provides long-term, fixed rate financing for up to 20 yrs

✓ Increases NOI, EBITDA, and Property Value
Why PACE?

✓ Can be utilized multiple times on same property

✓ Savings & ROI includes maintenance & end of life replacement costs (M&L)

✓ Covers assets considered “real property” including EV’s → Assets must remain with the property if sold

✓ To be cash flow positive over the term of the financing
Who Funds PACE?

- Ohio PACE statute allows PACE projects to be financed through a variety of sources
  - Private Equity
  - Self Funding
  - Traditional Funding
  - Bonds
  - Others?
Who Qualifies for PACE?

- For-profit, non-profit, and government owned businesses
- Business is in good standing
- Business outlook is good
- Property not leveraged (<80% LTV or lower)
- Projects >$250K; smaller can be funded
- Only used for energy efficiency projects
- Don’t own it? Get permission!
Projects That Qualify

✓ New Construction
✓ Refinancing of Existing Projects
✓ Facility Upgrades
✓ Process Improvements
Qualifying Technologies

- Process Equipment
- Lighting
- Energy Management Systems
- HVAC/Steam/Boiler Systems
- Compressed Air
- Building Envelope Improvements
- Coolers/Freezer/Chillers
- Solar/Wind/CHP
- Geothermal
- Most Energy Efficiency Improvements!
## Operational Impact of PACE

### Corporate Debt vs. Pace Financing

<table>
<thead>
<tr>
<th>Example Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Type</td>
</tr>
<tr>
<td>Project size</td>
</tr>
<tr>
<td>Annual Energy Savings</td>
</tr>
<tr>
<td>Simple Payback Target</td>
</tr>
<tr>
<td>IRR Hurdle Rate Target</td>
</tr>
<tr>
<td>PACE Term</td>
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<tr>
<td>PACE Interest Rate</td>
</tr>
<tr>
<td>Property Value Capitalization Rate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Corporate Debt</th>
<th>PACE @ 20 Yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Debt</td>
<td>($200,000)</td>
<td>$0</td>
</tr>
<tr>
<td>Energy Cost Reduction</td>
<td>$33,000</td>
<td>$33,000</td>
</tr>
<tr>
<td>Property Tax Increase</td>
<td>$0</td>
<td>($17,440)</td>
</tr>
<tr>
<td>EBITDA</td>
<td>$33,000</td>
<td>$15,560</td>
</tr>
<tr>
<td>Cash Flow Year 1</td>
<td>($167,000)</td>
<td>$15,560</td>
</tr>
<tr>
<td>Cash Flow Year 2 thru PACE Term</td>
<td>$33,000</td>
<td>$15,560</td>
</tr>
<tr>
<td>Payback Period</td>
<td>5.7 Years</td>
<td>- NONE -</td>
</tr>
<tr>
<td>Cash on Cash IRR over 10 years</td>
<td>13.38%</td>
<td>- NONE -</td>
</tr>
<tr>
<td>10-yr NPV of cash flow</td>
<td>$36,000</td>
<td>$104,400</td>
</tr>
<tr>
<td>Property Value Increase</td>
<td></td>
<td>$222,000</td>
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</table>
PACE Project Overview
Project Objectives

✓ Upgrade Facility, Replace Process Equipment, Improve Energy Efficiency

✓ Reduce Energy Costs

✓ Reduce Maintenance Costs

✓ Improve Net Operating Expense

✓ Incur No Out of Pocket Costs
Proposal Overview

- Manufacturing Facility
- All Original Equipment
- $809K Total Project Cost
- 20 Year Assessment
- Includes Annual Energy & Inflation Rate Adjustments
- Includes Maintenance and End of Life Replacement Costs (M&L)
Project Scope of Work

✓ Replace Material Stacker & Processing Equipment

✓ Install LED Interior/Exterior Lighting & Control System

✓ Replace Heating System

✓ Install Air Stratification Fans
Project Scope of Work

- Install Hi-Speed Entrance Doors
- Install Rooftop Solar Array
- Install Solar Skylights
- Install VSD Compressed Air System
Proposal Assumptions

1) Cost of Energy ~ $0.132 Per Kwh
2) Includes Incentives
3) Cost of Capital 7.5% Fixed Rate
4) 20 Year Term
7) 2% Annual Energy Cost Increase
8) 5% Annual Inflation Rate
Proposal Assumptions

9) Includes Maintenance and End-of-Life Replacement for PACE Term

10) Includes All Material and Labor
Proposal Summary

Annual Electrical Reduction  78%
Annual Gas Reduction  25%
Annual Cost (Current)  $115,348
Annual Cost (Proposed)  $31,905
Annual Savings  $83,443
Annual Assessment Payment  $78,204
Annual Net Savings  $5,239
Proposal Summary

Lifetime Savings (20 Year)  $1,668,876
Lifetime Cost (% of Savings)  94%
Lifetime ROI (20 Year)  7%
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Annual Savings...
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*Is Greater Than Annual Cost……*
Proposal Summary

Annual Electrical Reduction 78%
Annual Cost (Current) $115,348
Annual Cost (Proposed) $31,905
Annual Savings $83,443
Annual Assessment Payment $78,204
Annual Net Savings $5,239

Which Improves Cash Flow!
## Proposal Financial Summary

### PACE Life Cycle Cost Summary - 20 Year Assessment

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<tr>
<th></th>
<th>Yr 1</th>
<th>Yr 2</th>
<th>Yr 3</th>
<th>Yr 4</th>
<th>Yr 5</th>
<th>Yrs 1-5 Sub-Total</th>
<th>Yrs 1-10 Sub-Total</th>
<th>Yrs 1-20 Total</th>
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<tr>
<td><strong>Current Systems</strong></td>
<td>$94,947</td>
<td>$96,845</td>
<td>$98,783</td>
<td>$100,759</td>
<td>$102,774</td>
<td>$494,108</td>
<td>$1,039,645</td>
<td>$2,306,968</td>
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<tr>
<td>Annual Cost (Includes Maintenance &amp; End of Life Replacement)</td>
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<td></td>
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<td></td>
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<td><strong>Proposed Systems</strong></td>
<td>-$153,560</td>
<td>$22,384</td>
<td>$21,703</td>
<td>$24,384</td>
<td>$25,716</td>
<td>-$59,373</td>
<td>$102,518</td>
<td>$638,092</td>
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<td>Annual Cost (Includes Maint., End of Life Replacement, &amp; Incentives)</td>
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<td><strong>Annual Savings</strong></td>
<td>$248,507</td>
<td>$74,461</td>
<td>$77,080</td>
<td>$76,375</td>
<td>$77,057</td>
<td>$553,480</td>
<td>$937,127</td>
<td>$1,668,876</td>
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<td><strong>Annual Assessment Payment ~ $78,204</strong></td>
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<td>$391,020</td>
<td>$782,040.00</td>
<td>$1,564,080</td>
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<td><strong>Net Savings</strong></td>
<td>$170,303</td>
<td>-$3,743</td>
<td>-1,124</td>
<td>-1,829</td>
<td>-1,147</td>
<td>$162,460</td>
<td>$155,087</td>
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<td><strong>Life Time Cost (Percent of Savings)</strong></td>
<td>94%</td>
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<td><strong>Return on Investment</strong></td>
<td>217.77%</td>
<td>106.49%</td>
<td>70.51%</td>
<td>52.30%</td>
<td>41.55%</td>
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<td>19.83%</td>
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**Cash Flow Positive From Day 1!**