Welcome!
We will be starting soon.
The Low-Income Forum on Energy Presents:

**What Can PACE Financing Do to Help Affordable Housing?**

Mark Thielking, Energize NY and Jeanine Baney, Drum Hill Senior Living

March 23, 2017
1:30 p.m. – 2:30 p.m. ET
LIFE, the Low-Income Forum on Energy, is a unique statewide dialogue that brings together organizations and individuals committed to addressing the challenges and opportunities facing low-income New Yorkers as they seek safe, affordable and reliable energy.

Supported by the New York State Public Service Commission and the New York State Energy Research and Development Authority (NYSERDA), the LIFE dialogue encourages an interactive exchange of information and collaboration among the programs and resources that assist low-income energy consumers.

Working to help low-income New Yorkers address energy issues.
LIFE 2017 Regional Meetings

May 1 - New York City - Long Island City, Queens NY
May 2 - Long Island - Melville NY
May 10 - Western New York - Buffalo NY
May 11 - Southern Tier - Corning NY
May 16 - North Country - Watertown NY
May 17 - Hudson Valley - Poughkeepsie NY
May 23 - Capital District - Saratoga Springs NY

http://events.lifenys.org
Monthly webinars

Thursday, June 22, 2017 @ 1:30-2:30 p.m. ET
Updates on the NYS Weatherization Assistance Program, NYS Homes and Community Renewal

Wednesday, July 26, 2017 @ 1:30-2:30 p.m. ET
Low-Income Solar in New York State, NY-Sun

Thursday, August 24, 2017 @ 1:30-2:30 p.m. ET
Best Practices for Low-Income Solar, GRID Alternatives

Thursday, September 21, 2017 @ 1:30-2:30 p.m. ET
Renewable Heat NY: Opportunities for Low-Income Households

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Phone: 866-697-3732 – Request “Low-Income Forum on Energy”
Email: LIFE@nyserda.ny.gov
Asking and Responding to Questions

Type into the text field and click “send.”
Click on the “Chat” icon to activate the chat function.
What Can PACE Financing Do To Help Affordable Housing?

Drum Hill Senior Living Community and Energize NY PACE Finance LIFE Webinar Series - March 23, 2017

JEANINE BANEY – Finance Director, Drum Hill Senior Living

MARK THIELKING– Executive Director
Energy Improvement Corporation

- Not-for-profit, Local Development Corporation
- Mission to increase clean energy adoption across NYS
- Controlled by member municipalities – shared service model
- Funded by NYSERDA, US-DOE, revenue from financings
- Serve property owners with services:
  - Energize NY Finance - Provides Capital
  - Energize NY Commercial - Support and Guidance
  - Energize NY Residential - Support and Guidance
Drum Hill Senior Living Community

122,018 sq ft

120 units

Former school built in 1909

Renovated into affordable, independent senior living facility in 1999

Located in the City of Peekskill, NY
Energy in Buildings

New Yorkers spend $35 billion annually on energy in buildings

- $10.5 billion is wasted
- Property owners want to stop wasting money and energy.
- Why don’t they?
Our Communities need:

- Low-cost, accessible and long-term financing for clean energy projects in commercial sector
- Support for property owners and service providers through the clean energy upgrade process
Energize NY (PACE) Finance
Property Assessed Clean Energy

“Municipalities would fulfill an important public purpose by providing financing to property owners for the installation of renewable energy systems & energy efficiency measures.”

- Article 5L of the NYS General Municipal Law

- Repayments collected by municipality via tax bill charge
- Senior lien status

Energize NY Finance offers PACE in-behalf of our Municipal Members
PACE is Nationwide
Property Assessed Clean Energy Finance
Membership Activity
As of March 2017
Membership Activity
As of February 2017

[Map of a region with various towns and cities marked in different colors to represent membership activity categories: Member, Passed Local Law, Scheduled Hearing, and In Discussion.]
PACE Opportunity NYS:

PACE available now in 50%+ of NYS (ex NYC, based on population)

EIC’s Member Communities have:

- 133,000 Commercial Buildings
- 6000 Industrial Buildings
- 11,000 Agriculture Properties
- 25,000 Institutional Properties
- 2500 Multi-Family Properties
- 1,300,000 Residential Buildings

Estimated Value over $750 Billion*

* Based on Full Market Value from NYS Tax Data
Energize NY Services

- PACE Financing to fund project cost
- Energize NY Partner support
- Municipal Member services
- Property owner support
  - NYSERDA + Utilities
  - Property owner summits
- Finance analysis tools
- Finance Application support

Troy waterfront CC-BY-SA-3.0/ Matt H. Wade at Wikipedia
Energize NY PACE Finance

Benefits

Property Assessed Clean Energy (PACE) = alternative, affordable financing

- Up to 100% of the cost of solar and energy efficiency projects of all sizes
- Eligibility is not based on traditional credit metrics, but on the building’s ability to carry the extra tax charge and generate positive cash flow from reduced energy costs
- Is repaid through an annual charge on the tax bill for the property over the term of the loan
- Automatically transfers to new owner if the property is sold
- Flexible customizable loan terms up from 5 - 20 years
- Competitive interest rates (4.75% to 6.1%)* depending upon market conditions and even lower rates for not-for-profits located in Westchester County.
Energize NY Finance
Eligible Building Types

Commercially owned; Including Non-Profits

PRIVATE COLLEGES TOO!
Eligible Improvements

- **Renewables**: Solar PV, Solar Thermal, Geothermal, Wind

- **Efficiency**: Lighting, Boiler Conversions, Furnace Upgrades, Insulation, HVAC, Chillers, Windows, Pumps, Smart Controls
Finance Criteria

- Estimated annual energy savings from improvements must be greater than annual finance payments
- Improvements have savings-to-investment ratio > 1
- Property’s existing loan-to-value is no greater than 80%
- Financing up to 10% of value of benefitted property
- No bankruptcy within last 7 years
- At least 3 year history of timely property tax payments
- Existing lender consent required
- NYSERDA/Utility energy assessments and verification
Energy + Affordable Housing

**Challenges:**
- Poor Credit / Limited access to capital
- Aversion to debt / Other Priorities
- Low or no tax appetite
- Complex decision-making
- Little extra capacity to add projects outside of mission

**Opportunities:**
- Deferred maintenance = Savings
- Interest in new capital structures
- Mission driven
- Focus on Cash flow
Opportunities
Affordable + Low Income Housing

- Reduce and fix energy costs
  - *Transforms a variable cost into a fixed cost*
- Address Deferred Maintenance
  - *Avoided Maintenance Costs can be re-deployed*
  - *Improvements create a healthier facility*
- Cannot tie up existing credit or cash reserves
  - *Existing lines very difficult to secure*
- Secure Affordable interest rate and long term loan
  - *Realized energy savings can be re-deployed for other uses*
Project Profile – Senior Housing
Drum Hill Senior Living

The Challenge: Drum Hill was facing a $50,000+ repair to its boiler and needed to upgrade its heating, cooling and lighting systems to better serve its elderly residents.

The Solution: Energize NY PACE Financing provided 20-year PACE financing for the entire project cost at 3.14% interest with no upfront costs and no need to tap Drum Hill’s credit lines. The project comprehensively addressed aging infrastructure and maintenance issues.
Drum Hill Senior Living

<table>
<thead>
<tr>
<th>Measure Description</th>
<th>Electric Savings (kWh)</th>
<th>Electric Demand Savings (kW)</th>
<th>Gas Saving (Therm)</th>
<th>Total Energy Savings (MMBtu)</th>
<th>Annual Energy Cost Saved ($/yr)</th>
<th>Actual Costs for Implementation ($)</th>
<th>Con Edison Incentive ($)</th>
<th>NET Actual Costs for Implementation ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler Replacement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chiller Replacement and VFDs</td>
<td>29,176</td>
<td>12.20</td>
<td></td>
<td></td>
<td>481.24</td>
<td>$ 4,996.02</td>
<td>$ 147,957.53</td>
<td>$ 30,000</td>
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<tr>
<td>Lighting Upgrade</td>
<td>125,649</td>
<td>2.95</td>
<td></td>
<td></td>
<td>99.48</td>
<td>$ 5,471.51</td>
<td>$ 250,849.16</td>
<td>$ 19,918.16</td>
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<tr>
<td>TOTALS</td>
<td>154,825</td>
<td>15.15</td>
<td></td>
<td></td>
<td>4,812.4</td>
<td>$ 4,960.52</td>
<td>$ 474,715.72</td>
<td>$ 72,385.63</td>
</tr>
</tbody>
</table>

Estimated Utility Costs

- $0.147
- $19.48
- $1.038

Percentage Energy Savings

- 14%
- 20%
- 10%
- 11%

- Replaced failing 80% efficient boilers with two new 95% energy efficient condensing boilers and controls
- Replaced aging chillers with two more energy efficient scroll chillers, reducing size by 10 tons of cooling, lessening peak demand and lowering operating electrical usage
- Introduced Variable Frequency Drives to operate hot and chilled water pumps and manage demand
- Upgraded fluorescent and incandescent lighting throughout the building with more efficient LED fixtures, providing improved light levels for building residents
Project Profile - Long Terms

Drum Hill Senior Living

(Estimated Figures)  20 YR TERM

- Total Project Cost: $ 474,716
- Con Edison Incentive: $ 72,386
- Fees & Expenses: $ 18,011
- Cost Financed: $ 420,341
- Annual Payments: $ 29,227
- 1st year savings: $ 29,604
- Annual Cash Flow: $ 376
- Positive cash flow: IMMEDIATE

Energize NY Finance provides positive cash flow on deep energy retrofits
**Project Profile-Affordable Housing**

**AHOME - Robson House**

**The Challenge:** AHOME, a non-profit owner of affordable housing, realized that energy improvements would cut energy costs for them and their tenants.

Finding project financing was a challenge even though project would pay for itself.

**The Solution:** The PACE financing was approved based on the property’s value and the energy savings potential and did not depend upon the size of the non-profit’s balance sheet.

Robson House is 31% more efficient, comfortable and has eliminated costly maintenance issues, too.
Project Scope

- Building envelope improvements

Est. Energy Savings

- 31% reduction
- $3,150 annually

Net Revenue Generated

- $1070 annually

---

Project Profile – (estimated figures)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Invoice</td>
<td>$25,717</td>
</tr>
<tr>
<td>Less: NYSERDA Incentive</td>
<td>($2,572)</td>
</tr>
<tr>
<td>Less: Customer Downpayment</td>
<td>-</td>
</tr>
<tr>
<td>Net Customer Financing</td>
<td>$23,145</td>
</tr>
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</table>

BORROWER COSTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Fee</td>
<td>$150</td>
</tr>
<tr>
<td>Title Search Fee</td>
<td>$300</td>
</tr>
<tr>
<td>ENY Closing Fee (4%)</td>
<td>$926</td>
</tr>
<tr>
<td>TOTAL FEES TO BE FINANCED</td>
<td>$1,351</td>
</tr>
</tbody>
</table>

Using Qualified Energy Conservation Bonds (QECB)       | Yes             |

Term of Financing (in years)                           | 15              |
| Interest Rate                                         | 2.94%           |
| Funds Disbursement Date                               | 7/15/15         |

NET FINANCING                                         | $24,496.11      |
| Capitalized Interest                                  | $614.25         |

TOTAL FINANCED AMOUNT                                  | $25,110.36      |

Projected Energy Cost Savings                          | $3,150          |

Annual Principal & Interest Payment                    | $2,080          |

Net Energy Cost Savings                                | $1,070          |
**PROJECT PROFILE:** Robson House, Affordable Housing Owned by A-HOME, a not-for-profit

*Energize NY: simple, low-cost, long-term financing for clean energy upgrades*

---

**THE PROJECT**

**Building details:**
- 1800s building
- 3,816 sq ft
- Multifamily home
- 4 apartments
  - (2 senior studios, 2 family apartments)
- Oil heat
- Window AC units

**Energy Efficiency Measures**
- Air sealing and insulation
  - Exterior walls
  - Rim joists
  - Attic

**Project Completed:**
July 2015

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**ENERGIZE NY™**

NY State’s PACE Program

**FINANCED BY**

**Project cost:** $25,717

**Incentives:** $2,570
(NYSERDA Home Performance with ENERGY STAR incentive)

**Amount financed:** $25,258

**Term:** 15 years

**Total interest rate:** 2.94%*

*Westchester County subsidized interest

**Energize NY member:**
Town of North Salem

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**ESTIMATED SAVINGS**

Energy savings: 31%
(112 MMbtu/yr)

**Cash flow to owner:**
+$1,050/yr

“We are planning to upgrade our other properties, since these projects directly reduce our operating costs and improve our bottom line. We can use the saved dollars for things that are important to us, our programs and the residents we serve.”

- Debbie Haglund, Executive Director; A-HOME
Project Profile – Not-for-Profit

Wainwright House

The Challenge: High energy and maintenance costs were cutting into this not-for-profit’s budget.

Wainwright House wanted to upgrade its aging infrastructure, but needed affordable financing for 100% of the costs.

The Solution: Energize NY financed 100% of the project costs, including all fees and administrative costs, over a 20-year term.

Wainwright House received a modern, comfortable, energy efficient building and net annual savings to use for other purposes.
## PROJECT INFORMATION (figures are estimated)

**CUSTOMER**
Community House - Main, Carriage & House

**STREET ADDRESS**
250, 260 & 270 Main St
Small Town
NY

**PROJECT PROFILE**

<table>
<thead>
<tr>
<th>EEM</th>
<th>Measure Description</th>
<th>Energy Savings</th>
<th>Costs</th>
<th>Con Edison Incentives</th>
<th>Net Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Electric (kWh)</td>
<td>Electric Demand (kW)</td>
<td>Gas Saving (Therm)</td>
<td>Oil Savings (Gallon)</td>
</tr>
<tr>
<td>1</td>
<td>Schedule (Install New Thermostats)</td>
<td>151</td>
<td>-</td>
<td>1,102</td>
<td>2,236</td>
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<tr>
<td>2</td>
<td>Upgrade the lighting to LED Lighting</td>
<td>4,294</td>
<td>0</td>
<td>-</td>
<td>(9)</td>
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<tr>
<td>3</td>
<td>Upgrade the lighting to T8 Lighting</td>
<td>322</td>
<td>0</td>
<td>(1)</td>
<td>(5)</td>
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<tr>
<td>4</td>
<td>Implement Lighting Controls</td>
<td>2,209</td>
<td>-</td>
<td>(26)</td>
<td>(1)</td>
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<tr>
<td>5</td>
<td>Replace Domestic Hot Water Heater (DHW) and Switch to Natural Gas</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>230</td>
</tr>
<tr>
<td>6</td>
<td>Install Low Flow Faucet Aerators</td>
<td>-</td>
<td>-</td>
<td>27</td>
<td>36</td>
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<tr>
<td>7</td>
<td>Install Low Flow Showerheads</td>
<td>-</td>
<td>-</td>
<td>48</td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td>Insulate Steam Piping</td>
<td>-</td>
<td>-</td>
<td>562</td>
<td>551</td>
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<tr>
<td>9</td>
<td>Add Insulation</td>
<td>12,738</td>
<td>5</td>
<td>5,962</td>
<td>-</td>
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<tr>
<td>10</td>
<td>Reduce Building Envelope Infiltration Losses</td>
<td>1,524</td>
<td>-</td>
<td>545</td>
<td>884</td>
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<tr>
<td>11</td>
<td>Clean and Seal Ductwork</td>
<td>2,015</td>
<td>-</td>
<td>128</td>
<td>-</td>
</tr>
<tr>
<td>12</td>
<td>Replace Cooling Equipment</td>
<td>4,052</td>
<td>8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>13</td>
<td>Replace Boiler and Switch to Natural Gas</td>
<td>-</td>
<td>-</td>
<td>454</td>
<td>1,388</td>
</tr>
</tbody>
</table>

**General Contractor Fee**
$26,159

**Contingency**
$47,445

**TOTALS - 260 Main St**
22,148 | 12.00 | 4,924.94 | 4,402.56 | 1,179 | $32,470 | $310,827 | $8,547 | $8,392 | $16,940 | $293,888 |

**TOTALS - 270 Main St**
5,156 | 1.95 | 2,860.13 | 0.00 | 304 | $2,001 | $23,364 | $1,171 | $2,215 | $3,386 | $19,978 |

**TOTALS**
27,304 | 13.94 | 7,785.07 | 4,402.56 | 1,482 | $34,471 | $334,191 | $9,718 | $10,607 | $20,325 | $313,866
Project Profile – Community House

The Need - Energy Saving Measures

- Oil-to-Gas Conversion and Efficient Boiler
- Temperature Controls
- Cooling Equipment
- Building & Pipe Insulation
- Doors & Weatherproofing
- Seal Ductwork (Qualified without incentive)
- Lighting (through Con Edison SBDI Program)
- 5yr Maintenance Contract

- Total Project Cost: $334,190
- Con Edison C&I Incentives: $11,424
- Con Edison SBDI Incentives: $8,900
- The Need – Cost Financed: $313,866
- Annual Payments (20-yr): $30,546
- Est. 1st year savings: $34,471
- Annual Cash Flow to Owner: $3,925
Energize NY Finance will accept Power Purchase Agreements (PPA)

- The Solar Project Owner agrees to sell solar power to the Property Owner through a long term contract called a “PPA”
- The Property Owner agrees to “lease” the property (roof/land) to host the Solar Project
- Energize NY provides the upfront capital to property owner to “pre-pay” for the power originating from a solar project
PACE Finance + Solar PPA=
Best of Both for Peekskill Nonprofit
## UA21 Steamfitters Union PPA

### The Pre Paid PPA Structure - System Size 35,400 watts

- **Base System Cost:** $141,700
- **NYSERDA NY Sun Incentives:** $28,320
- **Closing Costs (Fee, Appraisal, Title Search):** $6,441
- **Total Net Cost:** $119,851
- **PPA Owner Equity Contribution:** $43,410
- **Energize NY PACE (Pre-Paid PPA):** $76,441
- **Value of Annual Solar Production:** $8,267
- **Annual PACE Tax Charge:** $6,264
- **Gross Cash Flow to Owner:** $2,003

### The Alternative - Outright ownership

- **Total Net Cost:** $119,851
- **Investment Tax Credit:** $0
- **Depreciation Tax Credit:** $0
- **Energize NY PACE:** $119,851
- **Value Solar Production:** $8,267
- **PACE Tax Charge:** $9,756
- **Annual Cash Flow:** $-1,489
UA Local 21 Plumbers & Steamfitters Union, Peekskill, NY

Energize NY: low-cost, long-term PACE financing for clean energy upgrades

THE PROJECT

Building details:
- Former WPA Elementary School built in 1932
- Repurposed into office building
- 28,963 sq ft

Renewable energy measures
- 35.4 kW solar electric system
- Roof mounted
- Power Purchase Agreement (PPA)

FINANCED BY

ENERGIZE NY™
NY State’s PACE Program

Amount financed: $78,489
Term: 20 years
Interest rate: 5.17%
Financing Cost: $6,264/yr

Energize NY member:
City of Peekskill

Project Completed:
October 2016

ESTIMATED SAVINGS

Electric use offset: 28%
Annual average net Cash flow to owner: $2,003 yr

“We wanted to take advantage of solar energy in the most cost-effective way. Energize NY provided a flexible, low-cost solution to financing solar power for our union hall with no upfront cost. We particularly appreciate the opportunity to buy American-made modules.”

-- Kenneth J. Potter, President of Plumbers & Steamfitters Local Union #21
Energize NY Active + Closed Projects by Building Type – $8.6mm
Contact information!

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mark@energizeny.org
www.energizeny.org

Jeanine Baney
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jbaney@drumhill.org
www.drumhillseniorliving.com
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