



Empowering you to make
smart energy choices

Clean Energy Finance and Investment Authority

C-PACE:

**A financing tool for CHP in commercial &
industrial buildings**

Agenda

- **Who is CEFIA?**
- **What is PACE Financing?**
- **The C-PACE Advantage**
- **C-PACE to Date**

CEFIA is Connecticut's "Green Bank"



...transitioning programs away from government-funded grants, rebates, and other subsidies, and towards deploying private capital

...CEFIA was established in 2011 to develop programs that will leverage private sector capital to create long-term, sustainable financing for energy efficiency and clean energy to support residential, commercial, and industrial sector implementation of energy efficiency and clean energy measures.



Property Assessed Clean Energy

- An innovative financing structure that enables commercial, industrial, and multi-family property owners to access financing for qualified energy upgrades and repay through a benefit assessment on their property tax.

**Private capital
provides 100%
upfront, low-cost,
long-term funding**

**Repayment through
property taxes**

**A senior PACE lien is
put on the property
and stays regardless
of ownership**

The C-PACE Advantage for Owners

Near term plan to sell?

Lack of funding?

Cannot assume more debt?

Insufficient payback/ROI?

Split incentives?

Uncertain savings/technical expertise?

Tax obligation fixed to property

100% upfront, 20 year financing

Assessments may qualify as OPEX

Positive cash flow in year 1

Assessment/savings pass to tenants

C-PACE Technical underwriting / SIR>1

C-PACE Advantage to other stakeholders

Capital Providers

- Low risk investment opportunity
 - Senior lien
 - Secure repayment mechanism (taxes)
- Legal and technical structure administered by CEFIA

Mortgage Lenders

- Improves Building Financials/Risk
 - Lowers OPEX
 - **SIR>1**
 - No acceleration
- Creates a more attractive building for occupants and owners
- Finances deferred maintenance needs

Municipalities

- Creates economic development & jobs
- Reduces energy costs for businesses
- Reduces pollution

Program Snapshot: First 9 Months

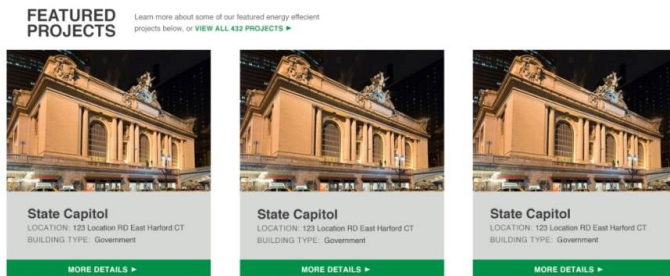
- 63 towns on board
- 70% of the CT market eligible
- 200+ contractors trained
- 14 qualified capital providers
- 113 Projects in Pipeline
 - Est. \$50 million in projects
- \$20M in CEFIA capital
 - \$14 million approved
 - \$ 7 million in closed transactions

Municipalities Opted into C-PACE

- Avon
- Beacon Falls
- Berlin
- Bloomfield
- Branford
- Bridgeport
- Brookfield
- Canaan
- Canton
- Chester
- Clinton
- Coventry
- Danbury
- Durham
- East Granby
- East Haddam
- East Hampton
- East Hartford
- Glastonbury
- Greenwich
- Groton
- Hartford
- Killingworth
- Manchester
- Mansfield
- Meriden
- Middletown
- Milford
- New Britain
- New London
- New Milford
- Newtown
- North Branford
- Norwalk
- Norwich
- Old Saybrook
- Plainville
- Putnam
- Rocky Hill
- Simsbury
- Southbury
- Southington
- Stafford
- Stamford
- Stratford
- Suffield
- Tolland
- Torrington
- Trumbull
- Waterbury
- Waterford
- West Hartford
- Westbrook
- Westport
- Wethersfield
- Wilton
- Windham
- Windsor
- Windsor Locks
- Vernon

**70% of the C&I
Market is “Open
for Business”**

Customers Apply Into C-PACE



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POWERED BY **HB** HONEST BUILDINGS

This is a screenshot of the 'step two | building information' form on the C-PACE website. The form is divided into several sections with various input fields and checkboxes. The sections include: 'Address of Property' (text field), 'Date of construction' (DDMM/YYYY dropdown), 'Is a parking area associated with the building?' (checkboxes for Yes/No), 'Gross square footage' (text field), 'Who occupies this property?' (checkboxes for Owner/Tenant), 'Date and description of last major renovation.' (DDMM/YYYY and Description text fields), 'What type fuel use?' (text field), 'Electricity provider' (text field), 'Do you currently pay property taxes on building?' (checkboxes for Yes/No), 'Are payments current?' (checkboxes for Yes/No), 'Is there a current mortgage on the property?' (checkboxes for Yes/No), 'Upload recent annual financial statement of property' (Choose File button), 'Property assessed value' (text field), 'Date of last assessment' (DDMM/YYYY dropdown), 'Estimated current value' (text field), 'Amount of debt' (text field), 'Are mortgage payments current?' (checkboxes for Yes/No), 'Do you have clear title to the property with no encumbrances?' (checkboxes for Yes/No), and 'Are there any outstanding tax liens or notices of default?' (checkboxes for Yes/No). A green 'CONTINUE >' button is at the bottom right.

cpace | CREATING CLEAN ENERGY OPPORTUNITIES

BUILDINGS PROJECTS EXPLORE MAP RESOURCES APPLICATION

step two | building information

Address of Property
[Text Field]

Date of construction
[DDMM/YYYY]

Is a parking area associated with the building?
If yes, provide description (above/below ground, connected)
☐ Yes ☐ No [Text Field]

Gross square footage
(not including any parking areas)
[Text Field]

Who occupies this property? ☐ Owner ☐ Tenant

Date and description of last major renovation.
(defined as a renovation that either involved expansion or reduction of the building's gross floor area by 10% or more, or that impacted total building energy use by more than 10%)
[DDMM/YYYY] [Description]

What type fuel use? natural gas, oil, steam, fuel provider (a) info:
[Text Field]

Electricity provider
[Text Field]

Do you currently pay property taxes on building? ☐ Yes ☐ No **Are payments current?** ☐ Yes ☐ No

Is there a current mortgage on the property?
☐ Yes ☐ No If yes, note the mortgage holder(s)
[Text Field]

Upload recent annual financial statement of property
[Choose File]

Property assessed value [Text Field] **Date of last assessment** [DDMM/YYYY] **Estimated current value** [Text Field]

Amount of debt
(current outstanding loan balance, including a breakout of the amount of the 1st or 2nd)
[Text Field] [Text Field]

Are mortgage payments current? ☐ Yes ☐ No

Do you have clear title to the property with no encumbrances? ☐ Yes ☐ No

Are there any outstanding tax liens or notices of default? ☐ Yes ☐ No

CONTINUE >

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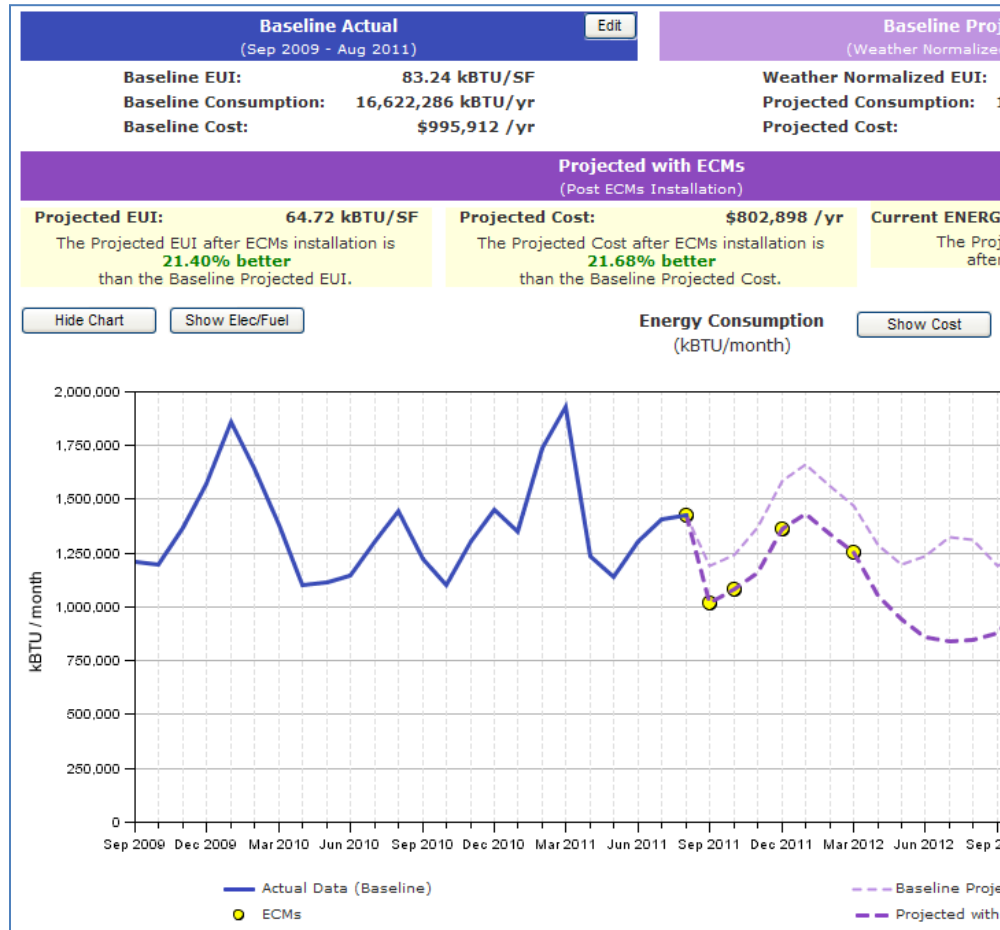
POWERED BY **HB** HONEST BUILDINGS

What's Eligible

Anything that saves energy from baseline ... *as long as it isn't going anywhere*

- High efficiency lighting
- HVAC upgrades
- New automated building and HVAC controls
- Variable speed drives (VSDs) on motors fans and pumps
- High efficiency chillers, boilers, and furnaces
- High efficiency hot water heating systems
- Combustion and burner upgrades
- Fuel switching
- Water conservation
- Heat recovery and steam traps
- Building enclosure/envelope improvements
- BMS
- Renewable energy systems

Benchmarking and M&V



	Projected
Costs and Savings:	
Estimated Required Investment (unleveraged):	\$1,992,976
Estimated Annual Savings:	\$258,563
Projected: \$21,547 avg. / month	
Return on Investment (ROI):	13.0%
Simple Payback Term (years):	7.71
True Payback Term (years):	7.33
Savings to Investment Ratio (unleveraged):	3.03
Savings to Investment Ratio (leveraged):	2.06
Total Cash Flows (unleveraged):	\$2,446,034
Total Cash Flows (leveraged):	\$1,507,840
Finance Scenario:	
Estimated Required Investment (100% leveraged):	\$0
Amount Financed:	\$1,992,976
Estimated Annual Debt Service:	\$195,411
180 months at 5.5% interest	\$16,284
Estimated First Year Benefit:	\$0
Excess Annual Cash Flow (first year):	\$63,152
Financial Analytics:	
Asset Value Impact from ECMs:	
@ 6.50% CAP rate	\$3,977,899
@ 7.50% CAP rate	\$3,447,512
@ 8.50% CAP rate	\$3,041,922
Asset Value Impact less Required Investment:	
@ 6.50% CAP rate	\$1,984,923
@ 7.50% CAP rate	\$1,454,536
@ 8.50% CAP rate	\$1,048,946
Internal Rate of Return (unleveraged IRR):	11.5%
Internal Rate of Return (leveraged IRR):	N/A
Net Present Value (unleveraged NPV):	\$470,296
Net Present Value (leveraged NPV):	\$790,653
Time to Positive Cash Flow (leveraged):	Immediate

CEFIA Sources Capital

Qualified Capital Providers

- CEFIA qualified 14 capital providers through a RFI.
- “Lending tree” model

Owner Arranged Financing

- Property owner is free to choose their capital provider from the private market.

Construction and Term Financing from CEFIA

- CEFIA authorized \$40M short term facility for construction and term financing.
- Warehouse facility



Solar and Energy Efficiency in Middletown

Project

- \$2,901,800 Energy Efficiency Upgrade and Renewable Energy including
 - The installation of water source heat pumps, variable frequency drives, high efficiency lights, occupancy sensors, air leakage improvements, an upgraded energy management system
 - and a 335.5 kWp ground-mounted photovoltaic system.



Financing

- Energy savings of \$195,248/year
- Incentives of \$387,885
- Zero Emissions REC of \$33,157/year for 15 years
- 30% Investment Tax Credit for Solar PV

Impact

- 51M kBTUs saved
- 8.5M kWh clean energy produced



Energy Efficiency Upgrade in Simsbury

Project

- \$840,415 energy efficiency upgrade, including
 - Installation of air leakage Improvements
 - High Efficiency lights
 - Occupancy Sensors and Upgraded Energy Management System
 - New 105 Ton Rooftop Unit

Financing

- Energy savings of \$61,000/year
- Incentives of \$165,860

Impact

- 18M kBTU saved



Energy Efficiency Upgrade in Windsor

Project

- \$2,283,320 energy efficiency upgrade, including
 - Power factor correction and high efficiency transformers
 - High Efficiency lights and occupancy sensor control
 - Upgraded Energy Management System
 - New Rooftop Units and building weatherization

Financing

- Energy savings of \$140,818/year
- Incentives of \$464,834

Impact

- 4.3M kBTU saved





Empowering you to make
smart energy choices

Genevieve Sherman

Senior Manager, Commercial & Industrial Programs

Clean Energy Finance and Investment Authority

860.257.2889

genevieve.sherman@ctcleanenergy.com

www.c-pace.com