

Building a Better Future:

Maximizing Finance Opportunities to Decarbonize Buildings

Join Illinois Green's Building Energy Resource Hub and the Building Performance Partnership for the next event in the Building a Better Future series – Maximizing Finance Opportunities to Decarbonize Buildings. Our program panelists will share proven building decarbonization strategies and financing opportunities including the Inflation Reduction Act (IRA).

moderator

Katie Kaluzny, Illinois Green Alliance

panelists

John Delurey, Senior Regional Director, Vote Solar

Lesley Showers, Executive Director, Institute of Cultural Affairs

Irvin Henderson, Henderson & Company, NCRC

Kimberly Johnston, Market Development Director, Slipstream

building performance
par+nership

Online

December 12, 2023
1:00 to 2:00pm

1AIA LU

Inclusive Energy Finance

Building a Better Future Webinar

December 12, 2023



Who We Are

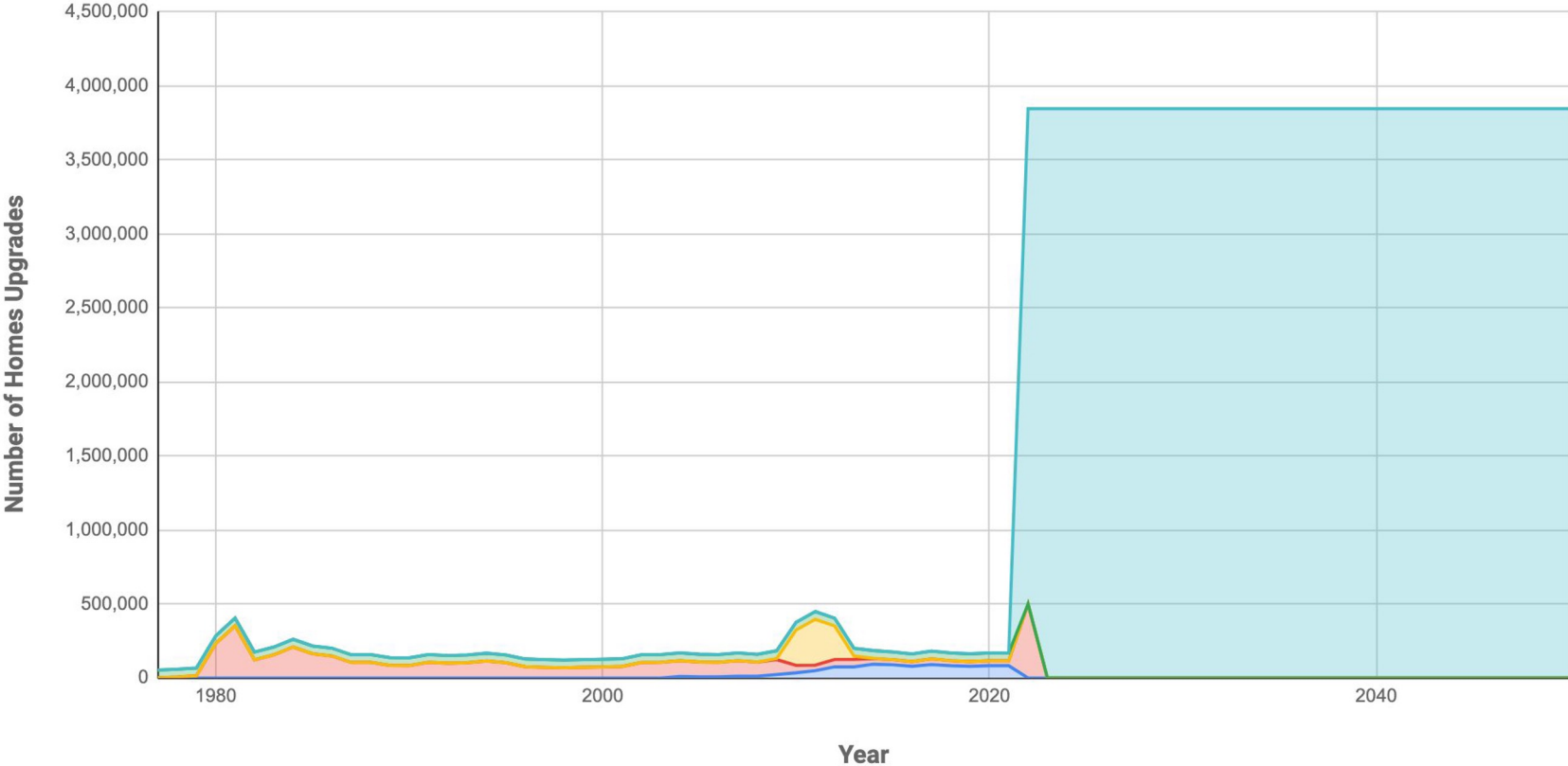
- About 40 staff based in six regions.
- Solar experts focused on climate justice.
- Focused on state-level legislative and regulatory work.
- Midwest team with active legislative campaigns in Michigan, Minnesota, and Illinois.

Bottom Line, Up Front

- The technology is available. We can tackle the climate crisis, reduce energy burdens, and make homes warmer and safer.
- **But**, we lack the political will to mobilize the capital needed. Financial markets are hesitant about energy finance, particularly for the “riskier” investments needed to prioritize disadvantaged communities.
- **Therefore**, we need to find new and innovative ways to financially support customers *and* contractors willing to catalyze this transition.
- Recent legislation in Illinois creates two new green banks (the **Clean Energy Jobs and Justice Fund (CEJF)** and the **Climate Bank**) and one new financing tool (the **Equitable Energy Upgrade Program (EEUP)**) to do exactly that.
- These new tools will allow Illinois to maximize funding from the \$27b in federal funding emerging from the **Greenhouse Gas Reduction Fund**.

Residential Energy Efficiency Upgrades in the U.S. 1977-2020 with IPCC Compliant Projection

- What we must do
- LIHEAP + State + Utility Funds
- American Reinvestment and Recovery Act
- Weatherization Assistance Program
- Home Performance with ENERGY STAR



"Upgrade Everyone – for FEPC Energy Burden Subgroup" from Liberty Homes and Clean Energy Works



Climate and Equitable Jobs Act (CEJA)

- Signed into law on September 15, 2021.
- Product of over two years of intense negotiations.
- 956 pages long – affects nearly every aspect of IL's energy economy

10,000 Foot Overview of CEJA Programs

- **Decarbonization targets** – coal-free by 2030, carbon-free by 2045;
- **Significant expansion of renewable portfolio standard (RPS)** – 40% by 2030, 50% by 2040;
- **Equitable contractor and workforce development** – over \$80m per year;
- **Electric transportation incentives** - \$4,000 EV rebates and equitable charging infrastructure;
- **Just Transition** – dedicated programs for fossil communities and workers;
- **Utility reform and accountability** – new ethics measures and performance incentives; and
- **Energy Efficiency** - extension past 2030 and expansion of funding and scope.

And three new inclusive financing mechanisms:

Clean Energy
Jobs and Justice
Fund (CEJF)

*IL's non-profit green
bank*

Illinois Climate
Bank

*IL's state-based green
bank*

Equitable Energy
Upgrade
Program (EEUP)

*IL's on-bill financing
program*

Green Banks



What is a Green Bank?



- It's not a bank.
- Some public, some non-profits.
- Can address multiple scales – city (DC Green Bank), county (Montgomery County Green Bank), state (North Carolina Clean Energy Fund), and country (Australia Clean Energy Finance Corporation).
- All leverage public or philanthropic capital to unlock private capital.
 - Loan Loss Reserves
 - Interest Rate Buy-Downs



Illinois Climate Bank vs Clean Energy Jobs and Justice Fund

we need both

Climate Bank

- State entity. Lives within Illinois Finance Authority (IFA).
- Will likely focus on larger projects and climate resilience.
- Language allows for other climate-related investments like stormwater management.

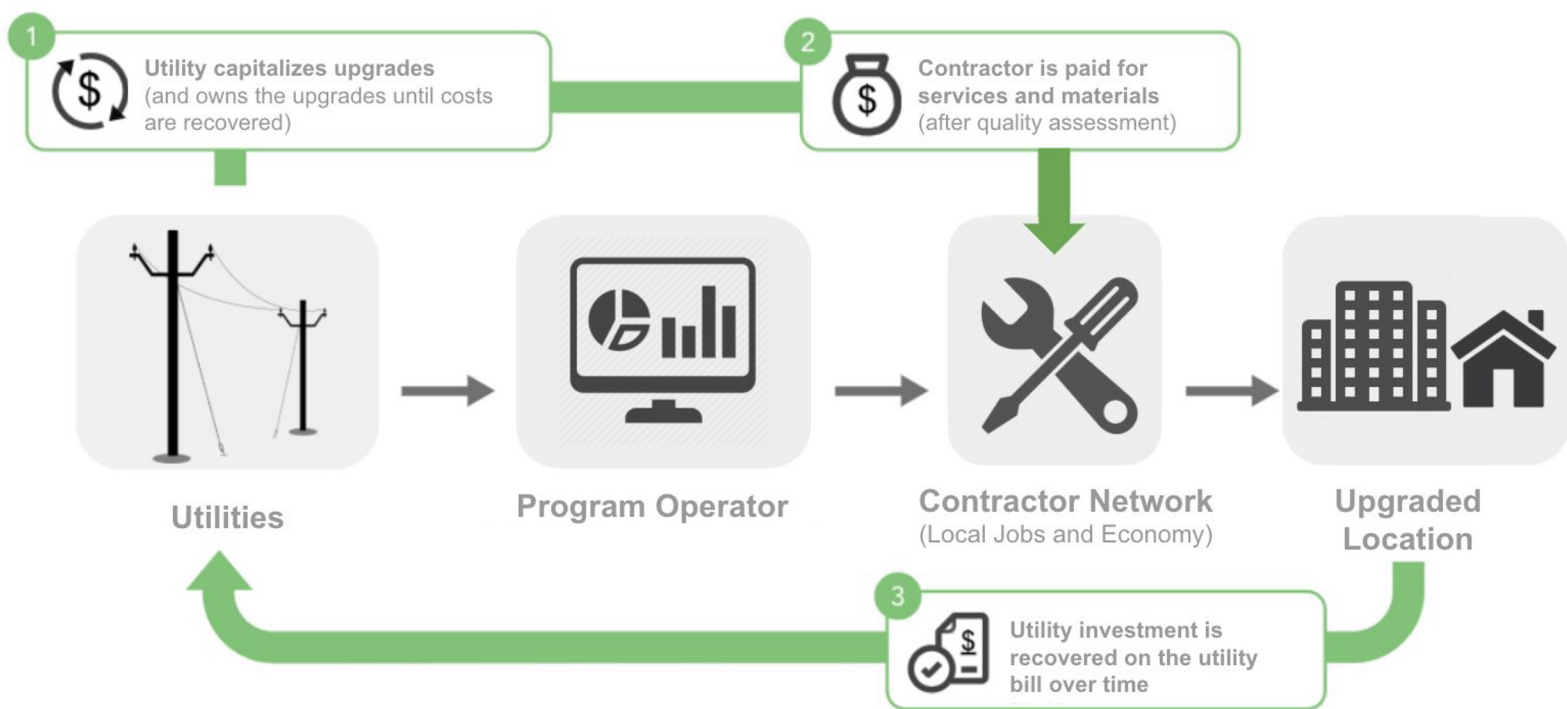
Clean Energy Jobs and Justice Fund

- Not-for-profit corporation separate from state government.
- Laser-focused on catalyzing equitable outcomes.
- Creates financing products for disadvantaged customers *and* contractors.



On-Bill Finance

Pay-As-You-Save[®]



Funding	Utility Investment	Consumer Financing
Ratepayer or taxpayer	Utility capex (<5% cost of capital)	Capital providers (>5% cost of capital)
Evaluates the person's income	Evaluates the savings opportunity of the location considering the structure and usage history	Evaluates the person's credit, income, and assets
NA (no obligation with grants)	Tied to the meter	Tied to the property owner
Available only to income qualified	Available to all utility customers with no split incentive (renter-landlord conflict)	Available only to property owners
NA (no payment with grants)	Automatically applies with notice	Generally not transferable
Na (No loss rate with grants)	<p>Disconnection for non-payment* successor customers continue payment (0.1% loss rate)</p> <p>*but customers have easier time paying a lower bill</p>	<p>Non-payment triggers a full write-down of unrecovered funds (3-5% loss rate)</p>



What can the EEUP help finance?

- Energy efficiency upgrades
- Customer-sited renewables
- Energy storage
- Demand response equipment

...so long as 80% of the energy savings cover the cost within 80% of the upgrade's lifetime...

THE INFLATION REDUCTION ACT:

GREENHOUSE GAS REDUCTION FUND



Administered By



Allocation



COMPETITIVE

Funding Available



Funding Expires



>40% of Funds to Disadvantaged Communities

J40

John Delurey
john@votesolar.org
www.votesolar.org



Extra Materials

Equitable Energy Upgrade Program: Overview

Who and how?

- Requirements apply to electric utilities serving 500,000+ customers (i.e. Ameren Illinois and Commonwealth Edison)
- \$20m/year per utility for the first year, \$40m/year per utility for the second year, and then sufficient capital to match demand from then on

Must comply with PAYS Essential Elements and Minimum Program Requirements:

- Annual charges can't exceed 80% of estimated annual savings
- Payment term can't exceed 80% of expected measure lifetime
- Upgrades and associated monthly charge must not entail new debt or liens for the participant

Additional Consumer Protections

- Includes language prioritizing customers under 150% Area Median Income
- Additional language ensuring that all customers are made aware of potential free upgrades, rebates, and direct install opportunities

	MACED (KY) ^{1,2}	Ouachita Electric Cooperative Corporation (AR) ^{1,3}	Roanoke Electric Cooperative (NC) ^{1,3}	Appalachian Electric Cooperative (TN) ^{1,3}
Start Date	2011	2016	2017	2019
Upgrade Package	Wx, HVAC	Wx, HVAC	DI, Wx, HVAC, DR	Wx, HVAC
Cust. Reached	0.2%	6.2%	6%	0.2%
Offer Acceptance Rate	78%	90%	90%	90%, no-copay (77% overall)
Average Upgrade Package Size (\$)	\$7,500	\$6,300	\$7,650	\$8,550
Avg. Annual Savings	18% \$519	26% \$664	23% \$709	24% \$629
Average Monthly Energy Savings (\$)	\$43.25	\$55.33	\$59.08	\$52.42
Average Monthly Tariff (\$)	\$34.60	\$44.26	\$47.26	\$41.93
Charge-offs	<0.4%	Zero	Zero	Zero

¹ Energy Efficiency Institute, 2019 PAYS® Status Update

² MACED HowSmart KY Program Data

³ EUtility SmartSheet database.

⁴ Greg Leventis, Presentation: SEE Action Loan Performance—Findings For ACEEE Finance Forum May 25, 2021. Lawrence Berkeley National Laboratory



GreenRise Historic Restoration Project



“We are the first generation to feel the effect of climate change and the last generation who can do something about it.”

- Jay Inslee, Governor - State of Washington

Introductions: What is the ICA Greenrise?

The ICA GreenRise Project is a \$23+ Million green restoration of a vintage 1921 building designed by Fugard and Knapp, later modified by Leo B. Steif. It is a Chicago Landmark Building, a classic revival style terracotta-clad 166,000 square foot facility with many of the systems vintage original. Since 1971, it has been home to the Institute of Cultural Affairs -USA.

ICA GreenRise offers a variety of ways to live and work in a historic Uptown building. The GreenRise houses 19 nonprofits that serve 1000 of the most vulnerable clients per week with healthcare, immigrant services, workforce development, entrepreneurial technical assistance, mental health, women's services and people's pharmacy services. It is the largest social services center in the Midwest. It is also home to two intentional living communities and is planning expansion of affordable housing opportunities on the eighth floor of the building with a recently secured \$275,000 grant.

ICA's GreenRise will be a national demonstration on how to accomplish historic renovation and innovative energy efficiency of vintage buildings.

This is important because:

- Low-carbon buildings—those that pair high energy efficiency with renewables and emit little or no net carbon—have the potential to reduce global building energy use by 50 percent.
- Across all economies, low-carbon buildings are linked to health by reducing outdoor and indoor air pollution, improving comfort and well-being, and reducing risks from climate change.

*From "BUILDING URBAN FUTURES: CITY CARBON ACTIONS ANCHORED IN BUILDING CODES AND STANDARDS,"
September 25, 2018 by Karen Weigert, Senior Fellow, Global Cities, a Project of the Chicago Council on Global Affairs.
Previously, Karen served as the City of Chicago's Chief Sustainability Officer for five years.*

GreenRise Restoration Vision



ICA's *GreenRise Uptown* Learning Lab is striving to be the first national demonstration of a vintage building that approaches **Carbon Neutral**. The building has one of the largest rooftop solar array in Chicago, which now provides over 25% of the building's energy.

The restoration was planned through an 2016 energy charrette with our architect, general contractors, mechanical-electrical-plumbing subs and engineers, area residents, board members, staff and Henderson Development consultant.

Our architect, **Farr and Associates** was chosen because of their twin abilities and track record in historic preservation and sustainability. Our General Contractor, **Skender Construction**, was selected as well for their historic commitment and expertise in Passive House certification.

Phases of the GreenRise Restoration Project



Prior to launching the current undertaking, over 20 years ago ICA became one of the first in Chicago to install permeable paving in its parking lot. We subsequently implemented other building sustainability projects; most notably the installation of an array of 485 solar panels which generate 25% of our electrical energy.

The **GreenRise Historic Restoration Project** builds on this foundation and will extend sustainability strategies even further.

Phase	Focus/Foci	Why	Timing
One	<ol style="list-style-type: none"> 1. Innovative energy efficient HVAC Systems for 1st & 2nd floors 2. 1st Floor Atrium & new Conference Center 3. Reconfigure 1st Floor for new Tenants 4. New Bathrooms on 1st Floor 	<p>Deferred Maintenance; Improve Efficiency</p> <p>Increase bookings for Conference Center & local uses in 4th Quarter 2025</p> <p>Attract New Tenants for 1st & 2nd Floors</p>	<p>Close Financing in January 2024</p> <p>Construction starts 1st Quarter 2024</p>
Two	<ol style="list-style-type: none"> 1. 40% of Parking Lot sold to Sarah's Circle for Supportive Housing for Women 1. 8th Floor Tuck pointing, Rooms & Bathrooms 	<p>Cash Sale Affordable housing for Uptown</p> <p>More Affordable Uptown housing Additional income generation</p>	<p>Close Sale Feb 2021; Construction 2023</p> <p>Construction: Tuck pointing started 2023 Agreement & Financing TBD</p>
Three	<ol style="list-style-type: none"> 1. Terra Cotta Enhancements 2. More innovative HVAC 3. Future development on rest of lot with joint venture affordable housing partner 	<p>Maintain Landmark building</p> <p>Jump Start Affordable hosting business</p>	<p>Close Financing TBD</p>

1st Closing Projected in January ?



ICA GREENRISE CAPITAL STACK

CAPITAL STACK COMPONENTS

TIF Grant City of Chicago

PACE Equity Loan

Source Leverage Loan

State Historic Tax Credits

Federal Historic Tax Credits

New Market Tax Credits

Sponsor Equity

Board Capital Campaign

Interior view of
new atrium and
new conference
center in [ICA
GreenRise](#)





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The ICA GreenRise
HENDERSON & COMPANY

The Institute of Cultural Affairs ICA GreenRise Center



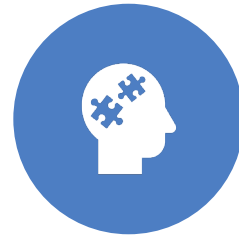
CAPITAL
STACK



TAX CREDITS



MUNICIPAL
SUPPORT



FOUNDATIONS



STATE AND
FEDERAL

Tax Credits

01

Federal
Historic Tax
Credits

02

State Historic
Tax Credits

03

Commercial
Building
Energy Credit

04

New Market
Tax Credits

05

Low Income
Housing Tax
Credits

Tax Increment Financing



Process

Projections

Plans

Budgets

Narratives
on Impacts

Dealing with Lenders



Tough Environment



Preparations—records, impacts, projections-economic model, DSCR



Community Reinvestment Act—Community Development Test



Lender's Strategic Plan



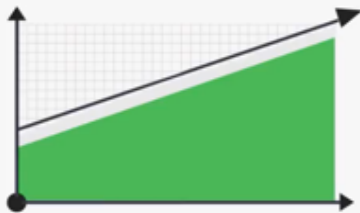
CDFI's and alternate lenders

Commercial Property Assessed Clean Energy (C-PACE)

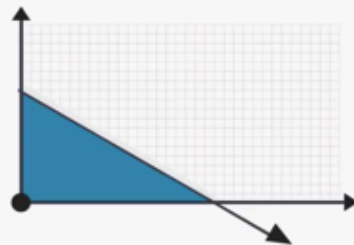


C-PACE is a property tax-assessment financing mechanism for **energy & water efficiency, renewable energy and resiliency improvements** to commercial properties.

INCREASE
BOTTOM LINE



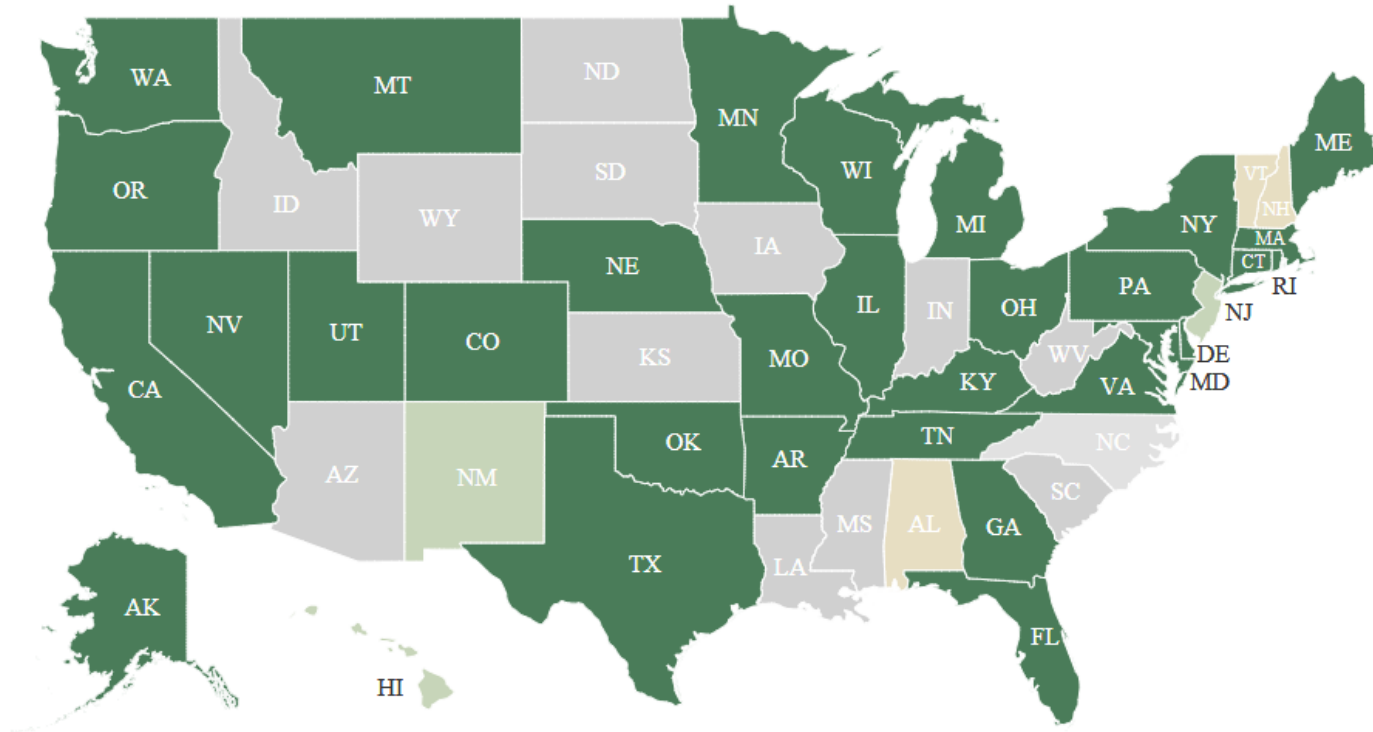
LOWER
ENERGY COSTS



Benefits:

- Finance up to 100% of hard + soft costs
 - Non-recourse financing
 - Frees up equity for other priorities
- Fixed rate, long-term: 20 - 30 years
 - Yields positive cash flow
 - Boost Property Value
- Transfers to new owner upon sale
- Potential off-balance sheet treatment

PACE-enabling legislation is active in 38 states plus D.C., and PACE programs are now active (launched and operating) in 30 states plus D.C. Residential PACE is currently offered in California, Florida, and Missouri. Click your state to find PACE programs operating in your area.



Map key



Active program(s)

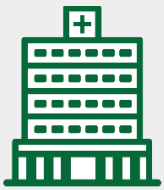


Program in development



PACE-enabled

Commercial Properties



HEALTHCARE

E



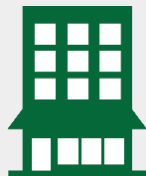
RETAIL



NONPROFIT



INDUSTRIAL



MIXED USE



OFFICE



MULTIFAMILY



HOSPITALITY



AGRICULTURAL

Project Types

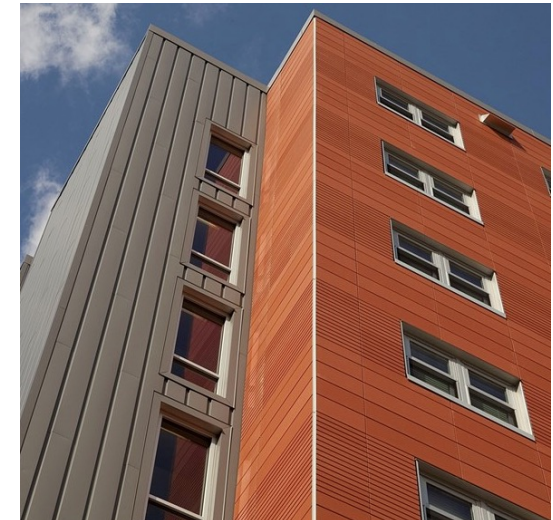
- Renovations
- New Construction
- Adaptive Reuse
- Refinance
- Equipment Installation

** Property located in member county*

** Does NOT work for residential (1-4 units)
and government owned properties*

Energy & Water Efficiency

- Lighting Systems
- Building Controls
- Building Envelope Improvements
- Furnaces, Boilers & Chillers
- Heat Pumps
- Pumps, Motors & Variable Speed Drives
- Low flow fixtures
- EV Charging Stations



Renewable Energy

- Solar PV
- Battery Storage
- Biofuel
- Biodigester
- Wind



Miles Kimble Apartments

Adaptive retrofit of a 120-year-old historic building. PACE financing was used for the energy efficiency and water conservation improvements to the property.



PROJECT

Location:	Appleton
Property Type:	Apartments
PACE Financing :	\$951,421
Combined LTV:	90%
Term:	30 years

ENERGY SAVINGS

Ave. \$ Savings / Year:	\$47,135/Year
MMBTU Savings:	15,455,608/Year
Emissions Reduction:	202.6 Tons CO2e /Year
Water Savings:	643,713 gallons/Year

IMPROVEMENTS

- LED Lighting
- Roof, Wall, & Window Upgrades
- HVAC Upgrades
- Low flow fixtures
- Insulation
- High Efficiency DHW

BENEFITS

- Clean Energy Goals
- Long-term Capital
- Increase Leverage
- Non-recourse to borrower

The Avant

New construction financing for the energy efficiency and water conservation improvements to tenant units and common area of 33-unit market rate multifamily property.



PROJECT

Location:	Appleton
Property Type:	Multifamily
PACE Financing :	\$599,000
Combined LTV:	89%
Term:	20 years

ENERGY SAVINGS

Ave. \$ Savings / Year:	\$35,172 /Year
MMBTU Savings:	654.4 /Year
Emissions Reduction:	80 Tons CO2e /Year
Water Savings:	1.3 M gallons /Year

IMPROVEMENTS

- Building Shell
- LED Lighting
- Low Flow Fixtures
- HVAC/PTAC
- DWH

BENEFITS

- Clean Energy Goals
- Lower cost of capital
- Long term loan
- Increase Leverage
- Non-recourse to borrower



Urbane

PACE Financing: \$2,107,828
 Annual Savings: \$159,578
 Improvements: Building Shell: Roof, Walls, Windows, Doors, HVAC Systems, Low-flow fixtures, Gas Water Heater, Split System Water Heater, LED Lighting County: Outagamie



The Brin

PACE Financing: \$1,978,050
 Annual Savings: \$90,591
 Improvements: Building Envelope, Lighting, Wall upgrade, HVAC - Residential, HVAC - Retail, Low flow fixtures County: Winnebago



Peloton Residences

PACE Financing: \$1,000,000
 Annual Savings: \$65,094
 Improvements: Building Shell: Roof, Wall, and Window Upgrade, HVAC Systems, Low-flow Fixtures, DHW, Internal and External LED Lighting County: Dane



New Perspective Senior Living - Franklin Multifamily

PACE Financing: \$8,003,461
 Annual Savings: \$425,989
 Improvements: Building Envelop, HVAC, LED Lighting, Water Conservation County: Waukesha



Wilson Square

PACE Financing: \$2,365,000
 Annual Savings: \$108,849
 Improvements: High Performance Building Shell Upgrade, High Efficiency Heating/Air Conditioning Systems; Automated Energy Control Systems; High Efficiency Lighting Fixtures; Water Conservation Improvements County: Eau Claire

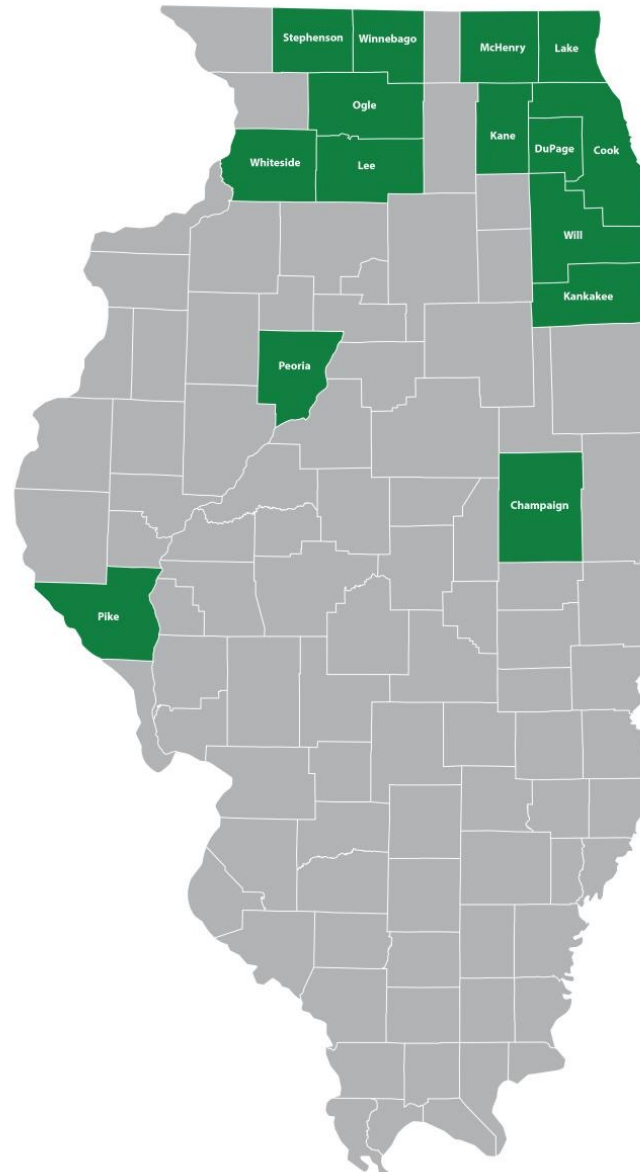


Bellevue Senior Living Multifamily

PACE Financing: \$1,850,000
 Annual Savings: \$77,909
 Improvements: Building Envelop, Electric PTAC Units and Duct Furnaces, Central Gas and Water Heaters, High Efficiency Water Fixtures, LED Lighting Systems and Controls, Upgrade - VFR, Low Flow Fixtures, DHW Heater County: Brown

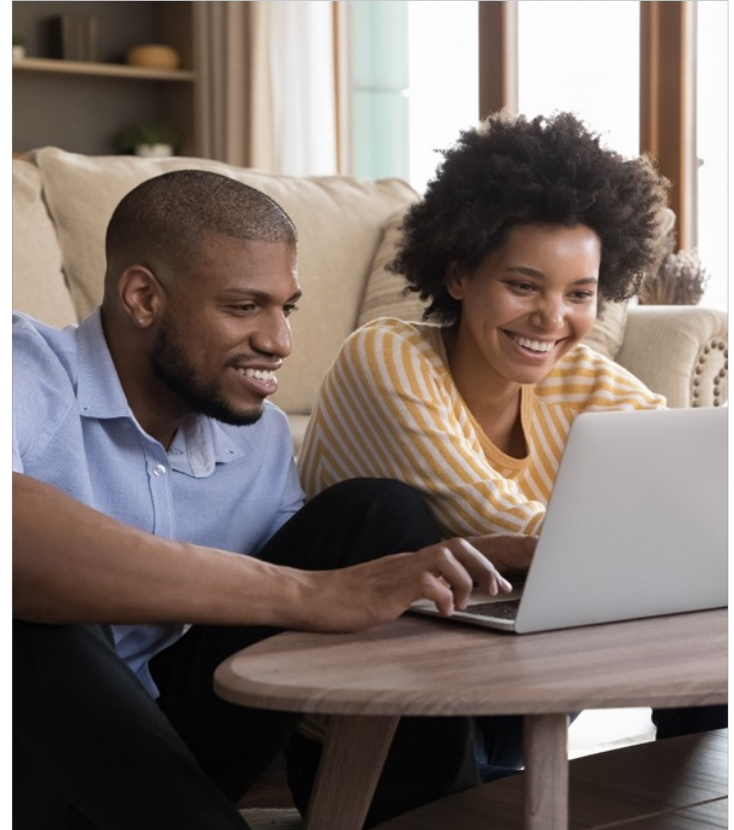
Illinois communities providing C-PACE:

- Blackhawk Hills
- Champaign
- Cook
- DuPage
- Kane
- Kankakee
- Lake
- Lee
- McHenry
- Ogle
- Peoria
- Pike
- Stephenson
- Whiteside
- Will
- Winnebago



Simple Application Process for Borrowers

- No Application Fee
- Pre-application step for property owners/ borrower to evaluate PACE



PROJECT CENTER

powered by  slipstream

 Kimberly Johnston
Slipstream

[Home](#) [New Application](#) [Documents](#) [Contractors](#) [Capital Providers](#)

Welcome to the Slipstream Project Center!

The Project Center enables you to submit an application for PACE financing for a new project, manage existing projects, and access Program Guidelines and related materials. Use the menu above or the tiles below to navigate throughout the system and to start a new application.

Start A New Application



Participating Contractors



Participating Capital Providers



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