



# Realtors & High-Performance Homes

---

April 10, 2023



# Agenda

## Introductions

## Who is the Green Bank?

## Home Solutions

- Smart E Loan
- Energy Storage Solutions

## Multifamily Solutions

- C-PACE (Retrofit and New Construction)
- LIME Loan
- Solar Financing
- Energy Storage Solutions



**Connecticut Green Bank is the nation's first green bank.** Established in 2011 as a quasi-public agency, the Green Bank uses limited public dollars to attract private capital investment and offers green solutions that help people, businesses and all of Connecticut thrive.

**Our mission is to confront climate change by increasing and accelerating investment into Connecticut's green economy to create more resilient, healthier, and equitable communities**

**Guiding this mission is our vision for  
“...a planet protected by the love of humanity.”**

## About Us

---



**Quasi-public organization** – broad enabling statute and powers set forth in Conn. General Statute 16-245n

---



**Focus** – Finance clean energy (e.g., renewable energy, energy efficiency, and alternative fuel vehicles and infrastructure) and environmental infrastructure (e.g., land conservation, parks and recreation, carbon offsets, ecosystem services, water) by leveraging public capital with multiples of private capital

---



**Support** – from a variety of sources, including:

**State Support** – \$0.001/kWh surcharge (i.e., Clean Energy Fund) on electric ratepayer bills (about \$7-\$10 per household per year ≈ \$25 MM per year) and RGGI allowance proceeds about \$5 MM per year (renewable energy)

**Federal Support** – competitive solicitations (e.g., SunShot), non-competitive resources (e.g., ARRA-SEP, USDA, etc.), and maybe a National Climate Bank

**Other Support** – issue “green bonds,” interest income, private capital (e.g., impact investors), and foundations (e.g., PRIs)

# The Green Bank is helping Connecticut flourish by offering green solutions for homes and buildings and by creating innovative ways to invest in the green energy economy.

## home solutions

Empowering all Connecticut families and households with accessible and affordable green solutions that bring them comfort and security. Find incentives for battery storage or use the Green Bank's flexible financing to reduce costs with health and safety improvements and the newest energy efficient technologies.



## building solutions

Creating stronger, more resilient buildings with green solutions for all types of buildings – from businesses and nonprofits to multifamily housing. Leverage Green Bank financing to go solar or retrofit your building with efficiency and resiliency measures, while saving money and realizing the benefits of more modern, sustainable buildings.



## our solutions

## investment solutions

Securing a healthier planet with smart ways for individuals and businesses to invest in green solutions – and our future – while also earning a return. Energize the green economy by investing in it today. Buy a Green Liberty Bond, invest through a crowdfunding offering, or join the movement by finding other ways to invest.



## community solutions

Helping Connecticut thrive and creating stronger towns and cities by offering green solutions for all. From solutions for local and state government properties, to providing support for community leaders in outreach to local businesses and community members – especially the most vulnerable – helping them to access green energy and achieve a more prosperous future.



## our goals



Leverage limited public resources to scale up and mobilize private capital investment in the green economy of Connecticut.



Strengthen Connecticut's communities, especially vulnerable communities, by making the benefits of the green economy inclusive and accessible to all individuals, families, and businesses.



Pursue investment strategies that advance market transformation in green investing while supporting the organization's financial sustainability goals.

# home solutions

**energy storage**  
SOLUTIONS



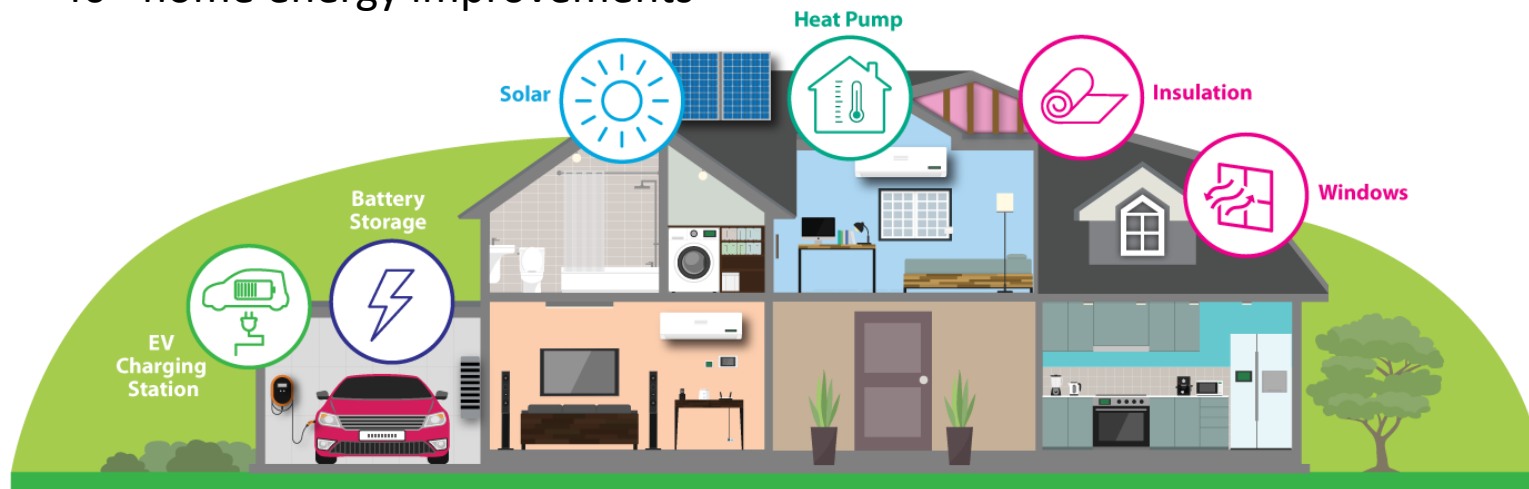
**smart-e loan**

# Smart-E Loans

*Flexible financing for home projects*

**smart-e loan**

- Unsecured personal loan with low interest rates
- Offered through a network of local lenders and contractors
- Flexible terms (5, 7, 10, 12 years) with fixed monthly payments
- No pre-payment penalty, no down payment required
- \$500 - \$40,000 loan amounts available
- 40+ home energy improvements



<https://www.ctgreenbank.com/home-solutions/smart-e-loans/>

# Smart-E Loans

*Flexible financing for home projects*

---



smart-e loan

- **Eligibility:** owner occupied, 1-4 unit properties located in Connecticut
- **Valuable feature:** Up to 25% of loan can be used for non-energy related measures (e.g. roof repair to prepare for solar)
- **Customers can get started by**
  - Signing up for a Home Energy Assessment  
<https://energizect.com/energy-evaluations/HES>
  - Finding a contractor:  
<https://www.ctgreenbank.com/find-a-contractor/>
  - Finding a lender:  
<https://www.ctgreenbank.com/home-solutions/find-a-lender/>

<https://www.ctgreenbank.com/home-solutions/smart-e-loans/>



# Customer Story – Smart E Loan

When Dan and Sarah bought their home and planned renovations, the large old, existing oil heating system had to go. They insulated the attic and windows to improve energy efficiency, and added a geothermal system as well as solar panels. Using a Smart-E loan, they were able to access low interest rate financing to cover these costs.

Thanks to these renewable and energy efficiency upgrades, Dan and Sarah’s yearly electric and heating expenses were only \$630.

**“When we first moved into the house, we knew this was a fixer-upper and that we wanted to make renovations. There would be no way to do this without the Smart-E loan. It was a pretty easy process.”**

– Dan



## Location

Redding, CT

## Energy Update

Solar Panels and Geothermal System

## Total Loan Amount:

\$25,000

## Projected Energy Savings

\$630 - annually

# Why was Energy Storage Solutions Created?

**The Washington Post**  
*Democracy Dies in Darkness*


Climate & Environment   Climate Solutions   Global warming   World impacts   Global emissions   Extreme heat

CAPITAL WEATHER GANG

## Extreme heat pushes highs over 110 in Texas as power grid nears brink

The Electric Reliability Council of Texas projects record-high demand as temperatures skyrocket

By **Matthew Cappucci**  
July 11, 2022 at 11:46 a.m. EDT



Temperatures reached record-highs on July 10 in Texas driving up a demand in power, straining the state's power grids. (Video: The Washington Post)

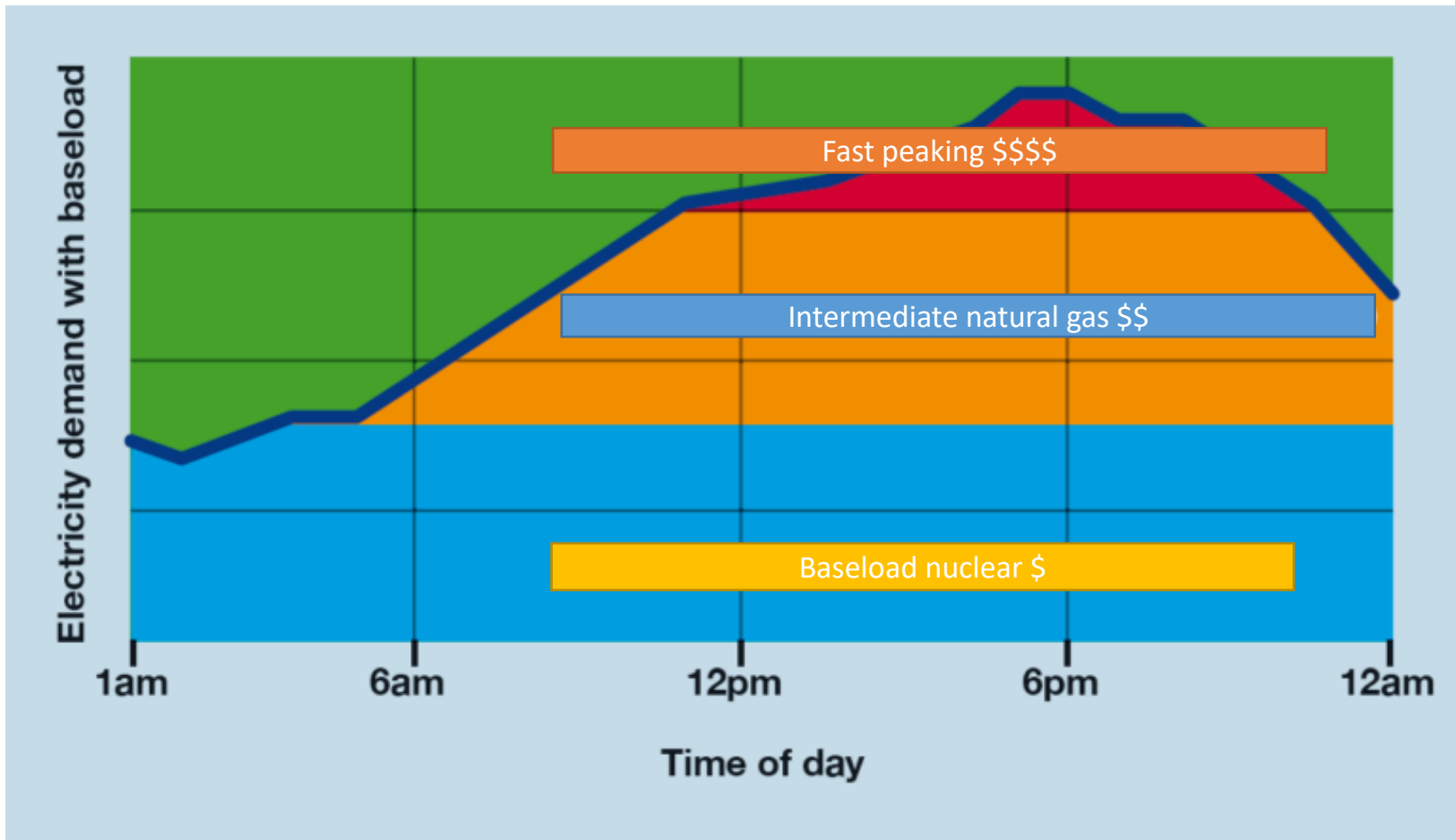
### State's extreme hot weather protocol continues



RIGHT NOW  
**HOT WEATHER PROTOCOL**  
6:34 69°

*EyeWitness News 3 article on Aug. 1*

# Why was Energy Storage Solutions Created?



# Energy Storage for Homes

---



Image: SunPower

- Battery backup – mostly paired with solar PV for homes
- Backup power when you need it
- Incentives available – receive compensation from the utility for grid services on blue-sky days
- Incentive adders for low-income, underserved communities, and grid-edge customers
- [www.energystorageCT.com](http://www.energystorageCT.com)

# Multifamily Solutions



**c-pace**

**c-pace new construction financing**

**solar programs**

## What is C-PACE?

Financing  
available to  
commercial  
properties for  
**GREEN**  
solutions

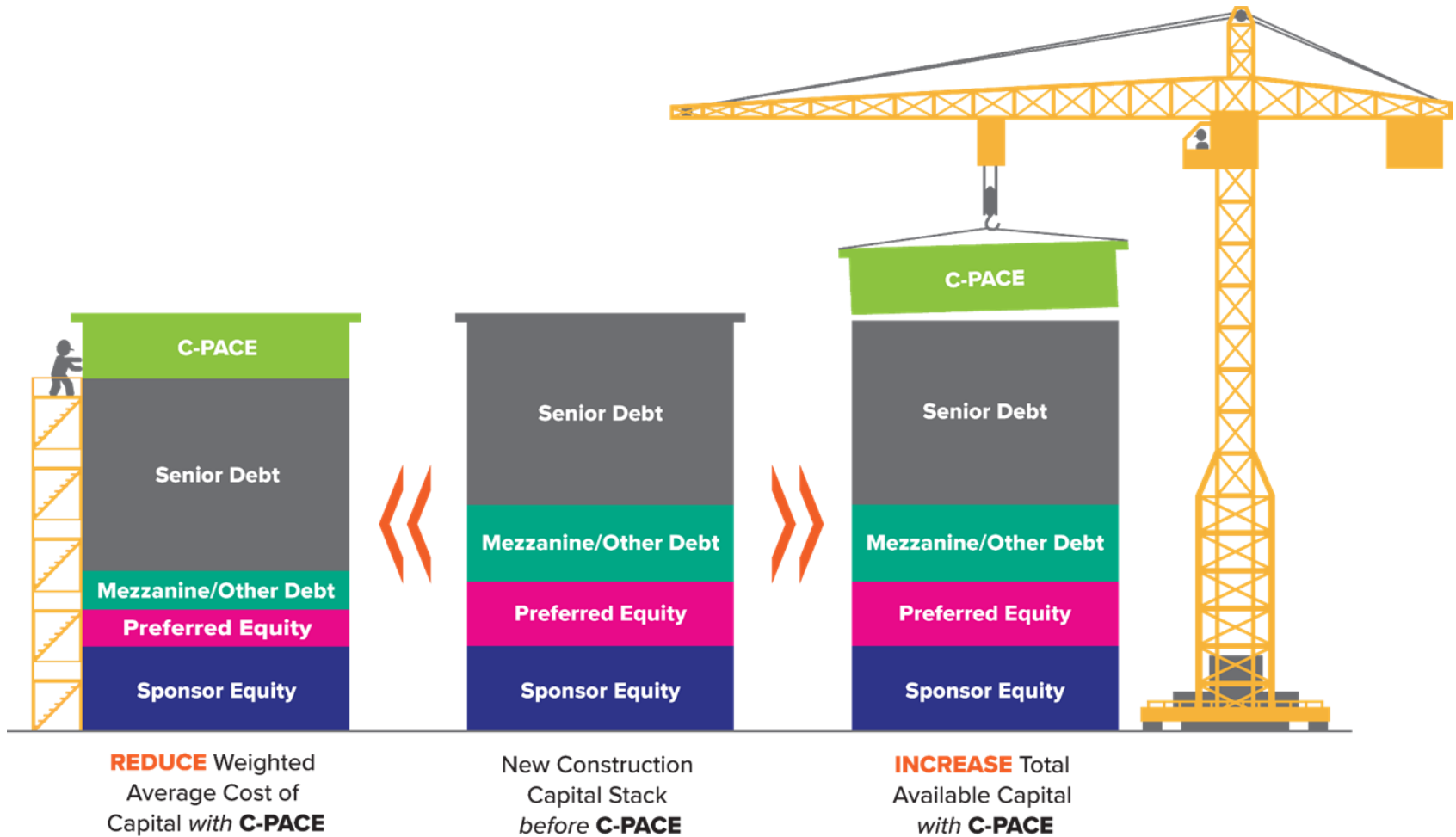
+ EV Charging  
Infrastructure  
& Resilience

Low-cost,  
long-term  
funding (up  
to 25 years)

Owner repays  
over time  
through a  
senior  
assessment  
placed on the  
property

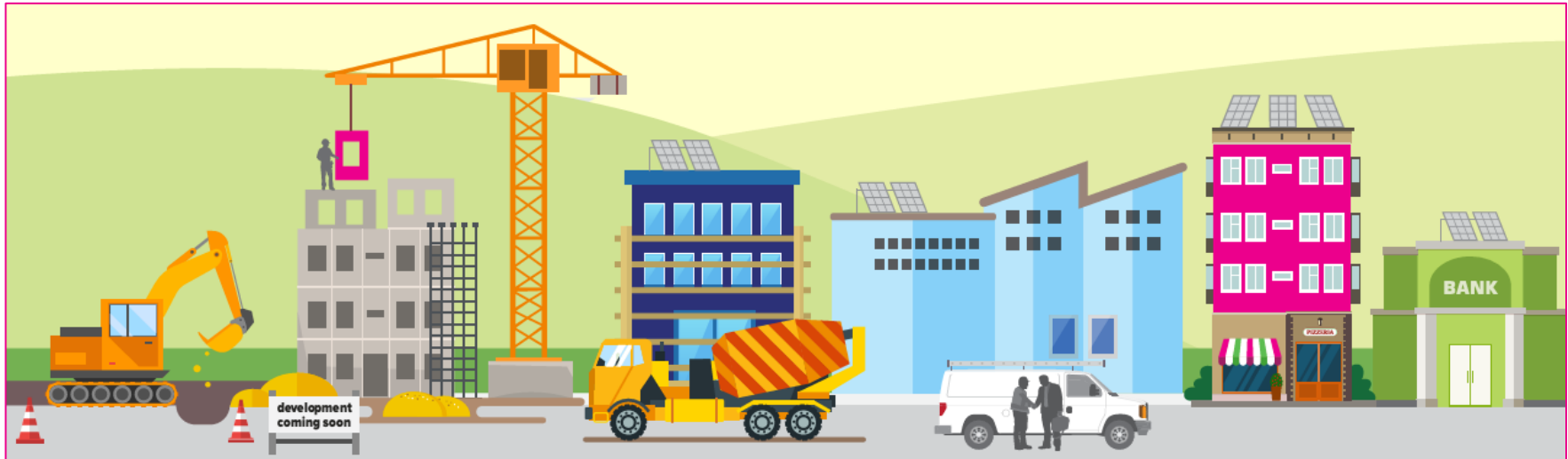
Assessment  
stays with the  
property  
regardless of  
ownership

# C-PACE new construction financing





## C-PACE new construction financing



- Developers can **access 20-35% of eligible construction costs** in C-PACE financing if a HERS rating **demonstrates that the building exceeds energy code(s)**
- **Bonus Technologies** such as solar PV, heat pumps, EV chargers, and battery storage systems provide additional incentives to developers.



# C-PACE Summary

Multifamily buildings of 5 or more units are eligible

Solutions for retrofit and new construction projects

Secured with non-accelerating assessment on the property

Requires lender consent

Covers energy savings measures that permanently affixed to the property (e.g. no plug-in appliances)

Can cover related non-energy savings measures (roof replacement plus solar!)

Building must be in a C-PACE municipality.

June 25, 2021

## W. Hartford convent conversion is CT's largest C-PACE efficiency project



PHOTO | CONTRIBUTED

A rendering shows the planned apartments at One Park Road.

By Matt Pilon

As crews prepare to convert the Sisters of St. Joseph of Chambéry convent and estate in West Hartford into 292 apartments, the two prominent developers behind the \$70 million project have closed on a clean energy project loan that's the largest in the Connecticut Green Bank's history.

The One Park Road project, led by Marty Kenny of Lexington Partners and LAZ Parking's Alan Lazowski, just closed on a \$13.8 million transaction with the quasi-public Green Bank's so-called "Commercial Property Assessed Clean Energy" program.

C-PACE provides long-term financing through a property's tax bill for renewable energy or efficiency measures at commercial properties. From 2013 through fiscal year 2020, C-PACE had committed a total of \$185 million to 315 projects.

The developers worked with New York-based CastleGreen Finance Construction on the C-PACE deal. CastleGreen didn't detail the energy measures planned for the site.

ADVERTISEMENT

Bryan Garcia, Green Bank CEO, said in a statement the deal "will not only make energy usage at the property more efficient and affordable, it will create housing opportunities and continue to support the Sisters, who strive to serve all people, especially those in need."

## Loans Improving Multifamily Efficiency (LIME)

Loans Improving Multifamily Efficiency (LIME)	Type	All MFH
	Rate	6.00 - 6.99%
	Term	5-20 years
	Criteria	EE: 1.3x ESCR
		RE: 1.1x ESCR



### Eligible costs:

- Implementation of energy efficiency and renewable energy improvements
- Up to 25% of loan proceeds may be used for non-energy efficiency improvements (structural, health/safety, etc.)

### Possible Uses:

- Mid-cycle properties that need a loan to help fund improvements, but are unable to take on additional mortgage debt
- Funds the gap between utility incentives and project costs; can often fund additional capital improvements.

### Security:

- UCC-1 filing and applicable collateral assignment

38

[www.ctgreenbank.com/programs/multifamily/lime](http://www.ctgreenbank.com/programs/multifamily/lime)

# Solar Programs

The Green Bank offers three ways for building owners to go solar

## solar ppa →



The Solar Power Purchase Agreement (PPA) gives businesses and nonprofits an opportunity to go solar with no upfront installation costs, delivering immediate savings on electricity and offering peace of mind in knowing that an experienced third-party owns and operates your solar system to maximize its benefits.

## solar roof lease →



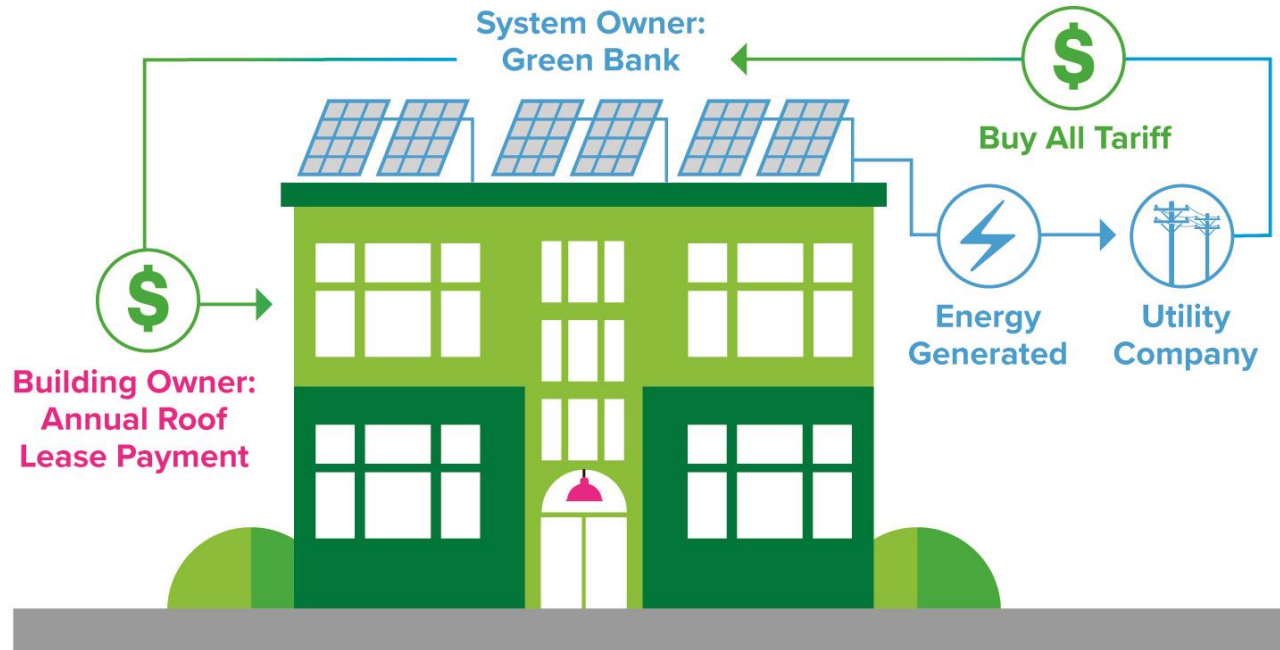
With a Solar Roof Lease, your commercial building or nonprofit roof's unused space becomes a revenue-producer. Leasing your roof space to the Green Bank to install a solar PV system means a reliable, worry-free tenant who puts lease payments in your account. And your roof helps put more renewable energy into the utility grid leading to a healthier future for all.

## c-pace solar →



C-PACE lets building owners pay for green improvements or new construction over time, including solar. C-PACE makes it easier for building owners to secure low-interest capital to fund energy retrofits or build to higher efficiency standards.

# How does a Solar Roof Lease work?

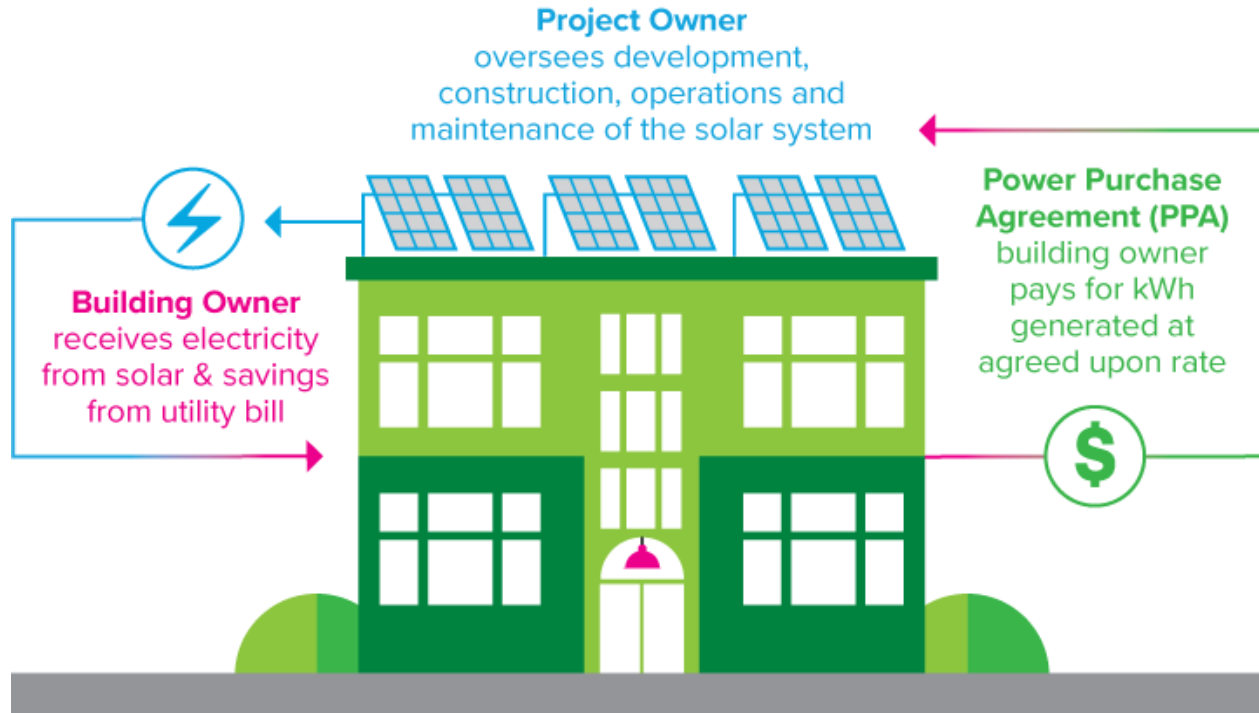


Roof Lease between Green Bank and Property owner

Green Bank (or financing partner) owns the solar: Oversees development, construction, & asset management

Utility (under tariff): Purchases electricity from solar installed on property. Green Bank makes lease payment to Property owner

# How does a PPA work?



**Contract between Seller (generates electricity) and Buyer (purchases electricity)**

**Green Bank (or financing partner) is Seller: Oversees development, construction, & asset management**

**Customer is Buyer: Purchases electricity from solar installed on property**



# energy storage SOLUTIONS



Buildings & Communities

# Energy Storage for Buildings

---

- Battery backup – paired with or without solar PV – for business, government, or nonprofit
- Save money on demand charges – smooth out your power consumption
- Backup power when you need it
- Incentives available – receive compensation from the utility for grid services
- Incentive adders for small businesses, grid-edge customers, critical facilities, and replacement of fossil fuel generators
- [www.energystorageCT.com](http://www.energystorageCT.com)



Image: Getty Images

## Stay in touch

Peter Ludwig

Connecticut Green Bank

Email: [Peter.Ludwig@ctgreenbank.com](mailto:Peter.Ludwig@ctgreenbank.com)

Phone: (860) 258 7806

<https://calendly.com/peter-ludwig>