

2023 Small Cities CDBG Workshop, Connecticut Department of Housing

Clean Energy Financing Solutions

March 28, 2023



AGENDA

1. Who is the Connecticut Green Bank?
2. CT Green Bank Financing
 - a. Solar Power Purchase Agreement
 - b. Solar Roof Lease
 - c. LIME Loan
3. Energy Storage Solutions
4. Additional Resources



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 and provide all of society a healthier and more prosperous future by increasing and accelerating the flow of private capital into markets that energize the green economy.

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

Connecticut Green Bank

About Us



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



Focus – Finance clean energy and environmental infrastructure (e.g., renewable energy, energy efficiency, and alternative fuel vehicles and infrastructure) 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 ≈ \$26 MM per year) and RGGI allowance proceeds about \$3-5 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., PRI's)

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 economy.

our solutions



our goals



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



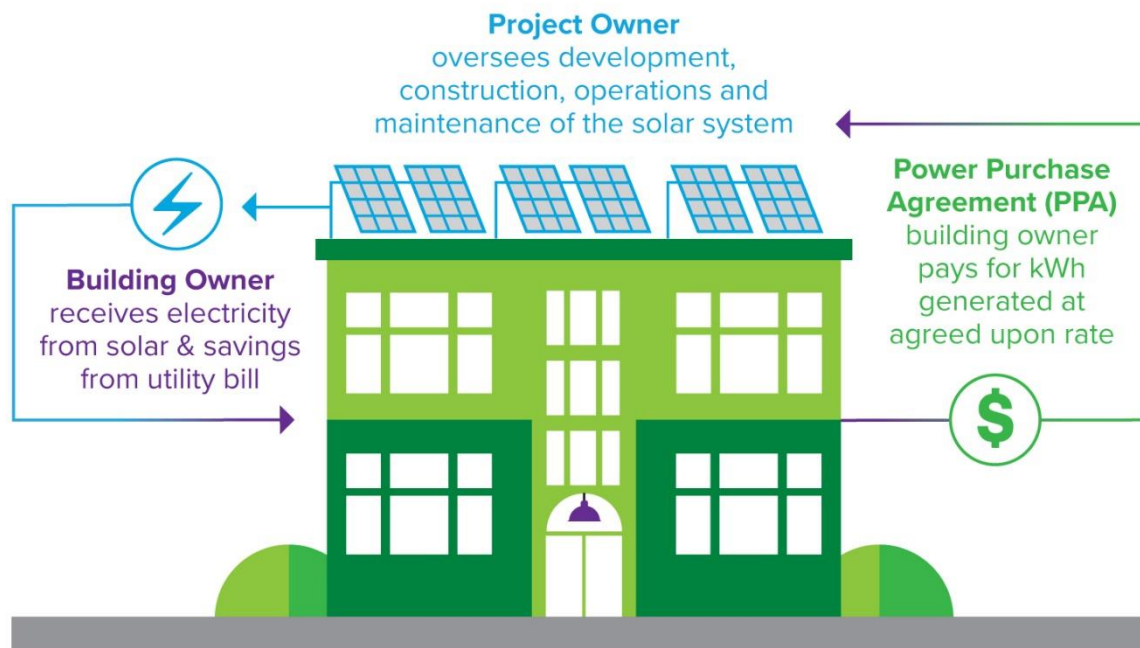
Strengthen Connecticut's communities by making the benefits of the green economy inclusive and accessible to all individuals, families, and business – especially those in vulnerable communities.



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

Green Bank Solar PPA: Program Overview

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

What are the Benefits of a PPA?



No upfront costs

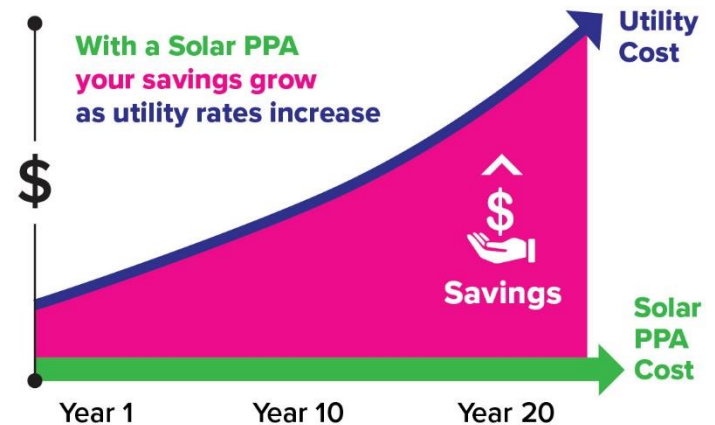
Lock in low electricity rate

Positive cash flow

No operations & maintenance costs

Preserve capital & credit lines

Managed by a third-party solar system owner



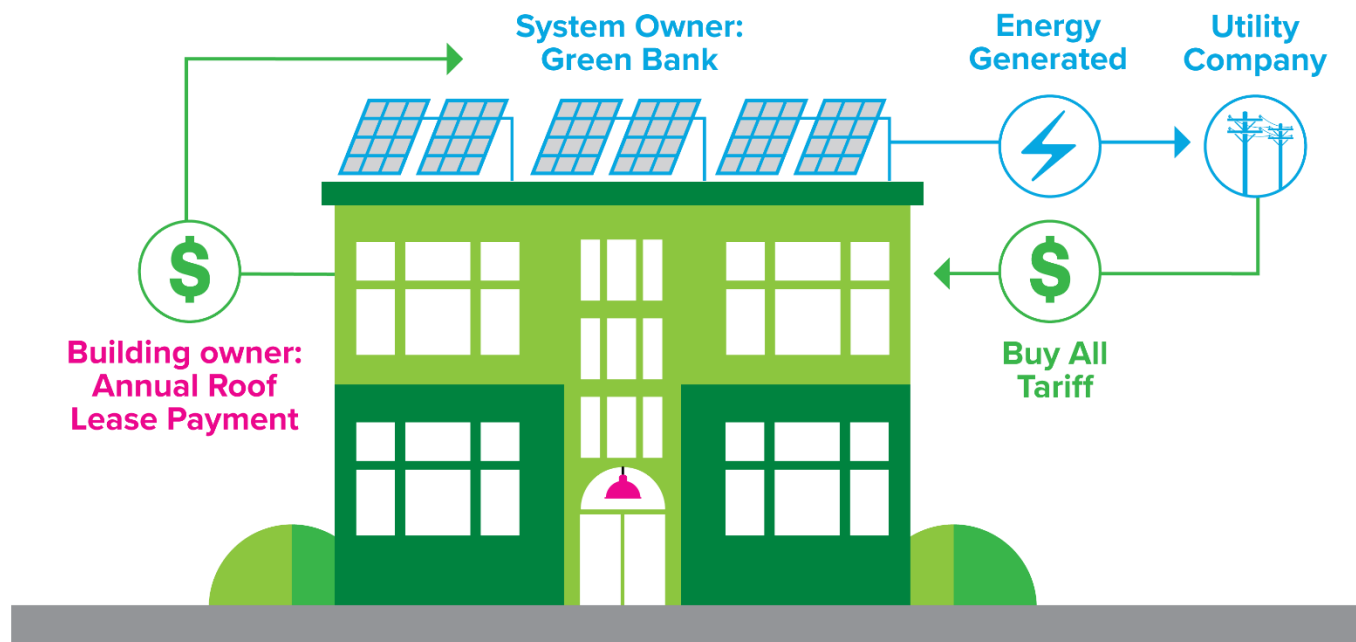
East Windsor Housing Authority



- Park Village
- 39.6 kW Solar PV system
- 84 low-income households, some elderly
- 20-year PPA term
- \$130,000 projected savings
- Strong partnership with contractor and housing authority

Green Bank Solar Roof Lease: Program Overview

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

Solar Roof Lease vs. PPA



Similarities

- Both allow you to go solar and help the environment.
- No upfront costs
- Systems are maintained by the Green Bank or partner.
- Great for nonprofits, government properties.
- Roof repairs can be part of the process.

Differences


- Roof lease creates a new passive income stream for the owner that is not based on system performance.
- Roof lease has no credit requirements or financial underwriting
- CPACE not required for roof lease
- Roof lease simpler and faster
- PPA reduces electricity costs for property owner by locking in a lower purchase price for system's energy.

LIME Financing: Program Overview



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

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www.ctgreenbank.com/programs/multifamily/lime



How the numbers work:

Unlocking Cash Flows to Stabilize Property

East Meadow Condo Association, Manchester, CT

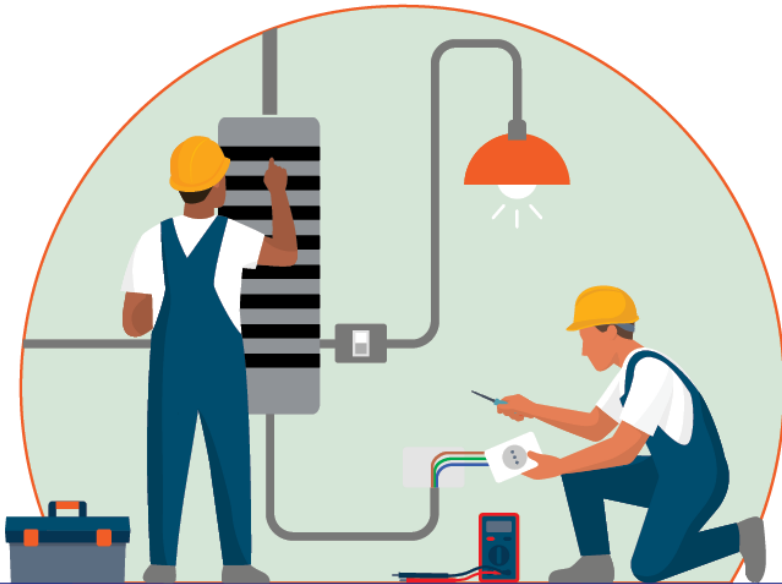


Description:	Lighting, boilers, roof replacement, insulation
Total Project Costs:	\$654,000
Utility Incentives:	<u>\$34,000</u>
Financed:	\$620,000
Est Annual Savings:	\$79,000
Annual Debt Service:	\$53,000, 1.37 DSCR
Est Free Cash Flow:	\$26,000
Financing Terms:	20 years, 6.00%
Payback Period:	7.8 years

www.ctgreenbank.com/our-stories/#multifamily

Energy improvements yield significant savings, unlocking cashflows that cover debt service – often for additional capital improvements.

Energy Storage Solutions: Program Overview



energy storage SOLUTIONS



Buildings & Communities

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



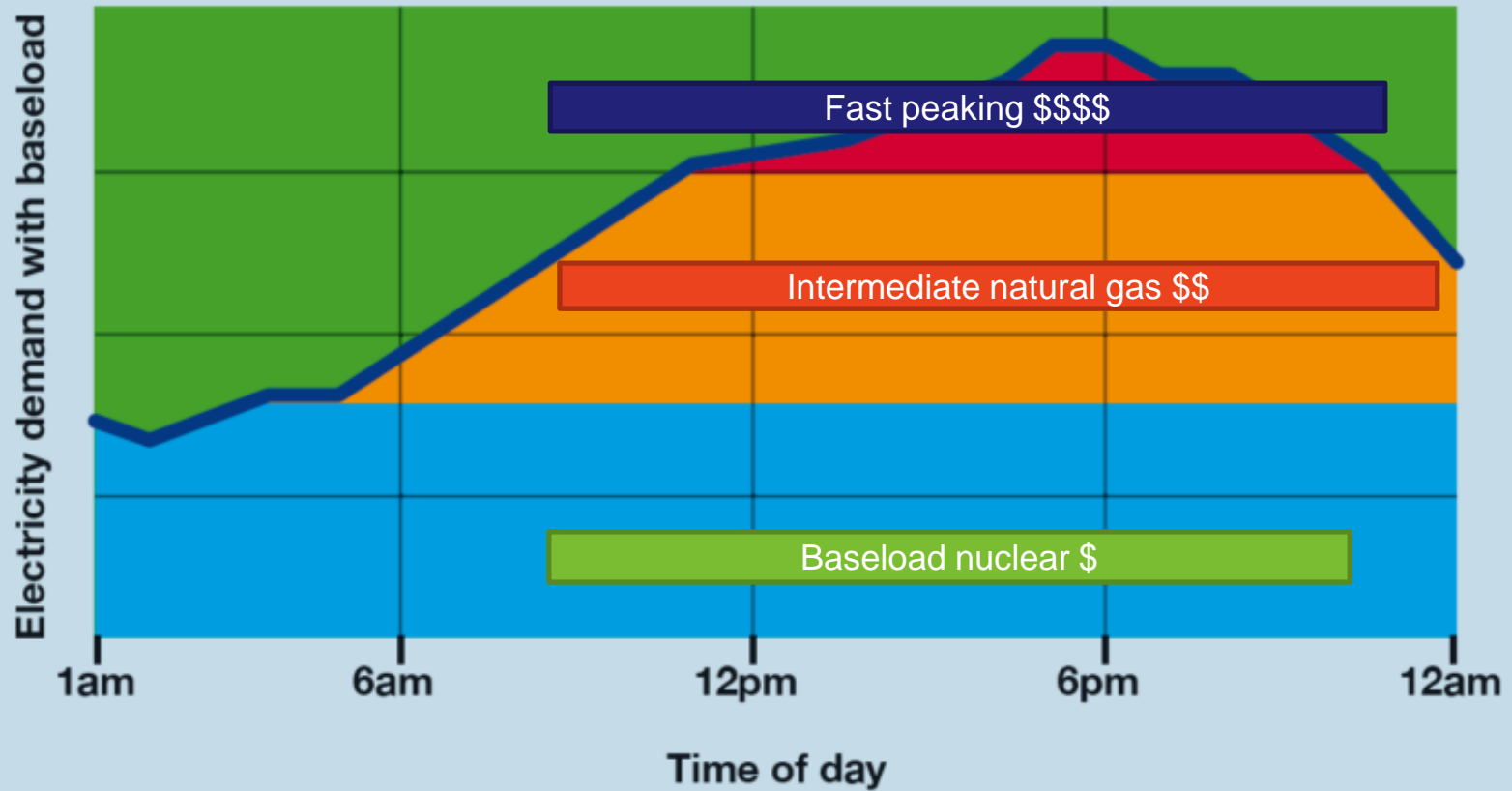
Temperatures reached record-highs on July 10 in Texas driving up a demand in power, straining the state's power grids. (Video: The Washington Post)

State's extreme hot weather protocol continues



EyeWitness News 3 article on Aug. 1

Why was Energy Storage Solutions Created?



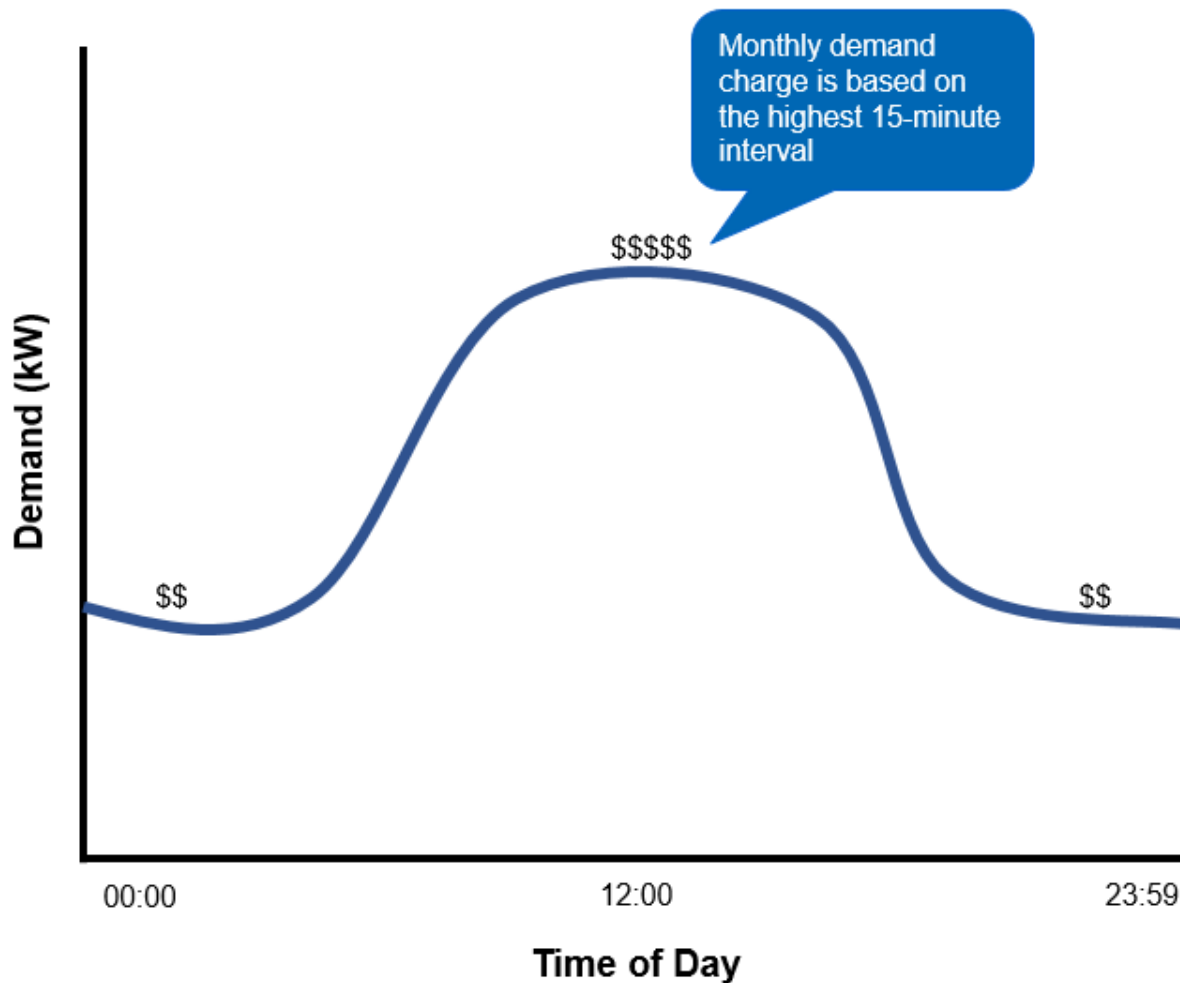
Energy Storage for Buildings

- 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

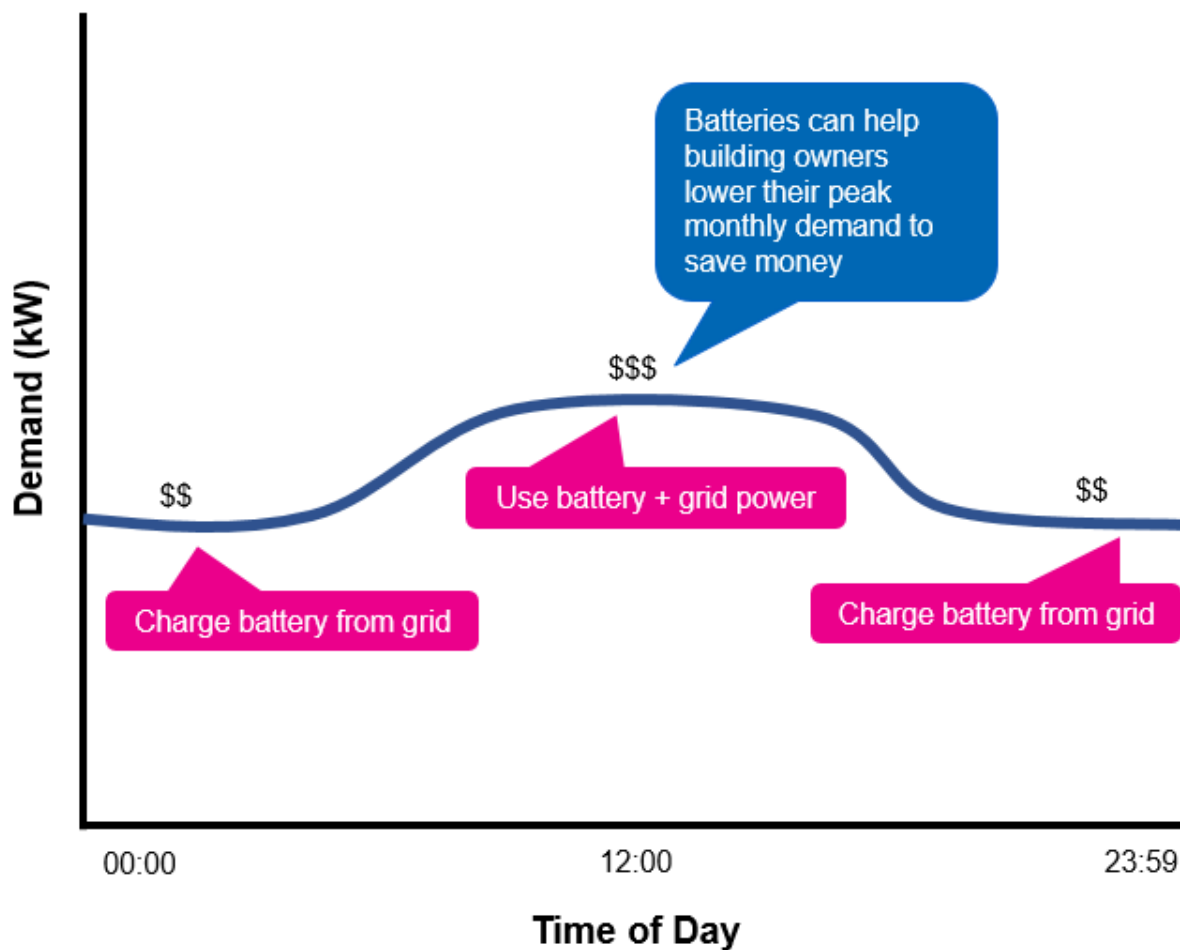


Image: Getty Images

Standalone Energy Storage for Buildings



Standalone Energy Storage for Buildings



More Information

<https://www.ctgreenbank.com/building-solutions/multifamily-financing/>

<https://www.ctgreenbank.com/east-meadow-condominiums/>

<https://www.ctgreenbank.com/windsor-locks-housing-authority/>

<https://energystoragect.com/>

Stay in touch

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