



Green Bank Financing Programs & Non-Residential Solar Tariff

Adapting Green Bank Offerings and Offering
New Solutions

11/17/2021





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.”**

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.

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.

Agenda



1. Non-Residential Solar Tariff
2. Existing Green Bank Products
 - C-PACE
 - PPA
3. Solar Roof Lease
4. Energy Storage Solutions
5. Q & A



Non-Residential Solar Tariff

Non-residential Tariff

Overview



- Successor to ZREC/LREC program
- Offers two tariff options
- 20 year tariff term
- Tariffs awarded in reverse auctions, to be held twice a year (except for small size class)
- Projects sized to meet on-site demand, with VNM options available for state, agricultural and municipal properties

Non-residential Tariff

Tariff Options



Netting Tariff

- Similar to existing net metering. Energy production netted against usage on a monthly basis; excess to grid compensated at retail rate
- Different from net metering in that monthly roll-over is a \$ credit rather than kwh. Any excess is not “cashed out” at wholesale rate, can continue to roll-over excess credits until end of 20 year term
- Separate REC payments made off electric bill, similar to ZREC payments now. Can be assigned to a third party
- Only bidding a REC rate into the auction, electricity price set at retail rate

Buy-All Tariff

- Similar to a power purchase agreement or feed-in tariff
- Fixed compensation for electricity and RECs for 20 years
- Can be fully assigned to a third party

Non-residential Tariff

Procurement



Category	Project Size (AC)	Total MW/ Procurement Year	Eversource MW/Year	UI MW/Year
Low Emission Projects	$\leq 2,000$ kW	10.0	8.0	2.0
Small Zero Emission Projects	≤ 200 kW	12.5	10.0	2.5
Medium Zero Emission Projects	>200 kW ≤ 600 kW	15.0	12.0	3.0
Large Zero Emission Projects	>600 kW $\leq 2,000$ kW	22.5	18.0	4.5
Total Zero Emission Projects	-	50.0	40.0	10.0

- Year 1 procurement
 - Opens 2/1/22
 - Closes 3/14/22 at 1pm
- Year 2 and beyond
 - There will be two annual auctions

Non-residential Tariff

Procurement



Year 1 Solicitation Price Cap

\$200.97/MWh

(Buy-All bids)

\$95.075/MWh

(Netting bids)

Bid Preferences

Landfills or Brownfields

(20% bid preference)

Distressed Municipalities

(20% bid preference)

Non-residential Tariff

Small Zero Emission Projects



- Similar to small ZRECs, rates will be administratively set and applications taken during a two-week window, then awarded through a lottery
- If capacity isn't used, available on "first come, first served" basis

Table 2: 2022 Small Zero Emission Tariff Rates

Buy-All Rate (\$/MWh)	Netting REC Value (\$/MWh)
200.97	95.075

Affordable Multifamily



- Affordable multifamily properties will be allowed to access the Residential Tariff
- Residential Tariff will be higher than the alternative commercial tariff in some cases
- There is no cap on the number of Residential Tariff projects
- One solar project to benefit all tenants and common space
- PURA will run process to define “affordable” and how benefits will be shared

Existing Green Bank Solar Products

C-PACE



**Financing
available to
commercial
properties for
clean energy
upgrades**

**100% 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

Project Example



CUSTOMER PROFILE	
Electric Utility	Eversource
Electric Rate Tariff	30
Electric Cost (\$/kWh)	\$0.097
Annual Escalation of Utility Price	2.50%
Property Owner's Marginal Tax Rate	21%
Solar ITC	26%

PROJECT DETAILS	
System Size (AC)	337 kw
System Size (DC)	249 kw
Year One Production	375,000 kwh
Cost	\$674,000

	Bid Price (\$/REC)	NPV Retail Rate (\$MWh)	Bid Price (\$MWh+\$/REC)	Bid Preference	Evaluated Bid Price (\$/MWh+\$/Rec)
Buy All		N/A	\$ 197.00	0%	\$ 197.00
Netting	\$ 79.76	\$117.24	\$ 197.00	0%	\$ 197.00

Buy-All C-PACE Scenario

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Year	1	2	3	4	5	6	7	8	9	10
Annual Electric Usage - kWh	375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000
Expected Annual Solar Generation kWh	375,000	373,125	371,259	369,403	367,556	365,718	363,890	362,070	360,260	358,459
CASH INFLOWS										
Buy All Tariff Revenue	\$73,875	\$73,506	\$73,138	\$72,772	\$72,409	\$72,047	\$71,686	\$71,328	\$70,971	\$70,616
MACRS	\$123,140									
ITC	\$175,240									
TOTAL CASH INFLOW	\$372,255	\$73,506	\$73,138	\$72,772	\$72,409	\$72,047	\$71,686	\$71,328	\$70,971	\$70,616
CASH OUTFLOWS										
PACE Payments	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786
Inverter Replacement Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Payments	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786
Annual Net Cash Flow	\$313,469	\$14,720	\$14,352	\$13,987	\$13,623	\$13,261	\$12,901	\$12,542	\$12,185	\$11,831
Net Cumulative Cash Flow	\$313,469	\$328,189	\$342,541	\$356,528	\$370,151	\$383,411	\$396,312	\$408,854	\$421,040	\$432,870
Simple Annual SIR	6.332	1.250	1.244	1.238	1.232	1.226	1.219	1.213	1.207	1.201
SIR over EUL										
TOTAL CASH INFLOW	\$1,707,760									
TOTAL C-PACE INVESTMENT	\$1,175,715									
SAVINGS-TO-INVESTMENT RATIO (SIR)	1.453									

<--- Approximate Maximum Possible C-PACE Funding

Netting C-PACE Scenario

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Year	1	2	3	4	5	6	7	8	9	10
Annual Electric Usage - kWh	375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000
Expected Annual Solar Generation kWh	375,000	373,125	371,259	369,403	367,556	365,718	363,890	362,070	360,260	358,459
Electric Energy Cost - \$/kWh	\$0.10	\$0.10	\$0.10	\$0.10	\$0.11	\$0.11	\$0.11	\$0.12	\$0.12	\$0.12
CASH INFLOWS										
Revenue based on Rate Tariff	\$36,375	\$37,098	\$37,835	\$38,587	\$39,354	\$40,136	\$40,934	\$41,748	\$42,577	\$43,424
Netting Tariff REC Revenue	\$29,910	\$29,760	\$29,612	\$29,464	\$29,316	\$29,170	\$29,024	\$28,879	\$28,734	\$28,591
MACRS	\$123,140									
ITC	\$175,240									
TOTAL CASH INFLOW	\$364,665	\$66,858	\$67,447	\$68,051	\$68,670	\$69,306	\$69,958	\$70,626	\$71,312	\$72,014
CASH OUTFLOWS										
PACE Payments	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786
Inverter Replacement Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Payments	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786	\$58,786
Annual Net Cash Flow	\$305,879	\$8,073	\$8,661	\$9,265	\$9,885	\$10,520	\$11,172	\$11,841	\$12,526	\$13,228
Net Cumulative Cash Flow	\$305,879	\$313,952	\$322,613	\$331,878	\$341,763	\$352,283	\$363,455	\$375,296	\$387,822	\$401,050
Simple Annual SIR	6.203	1.137	1.147	1.158	1.168	1.179	1.190	1.201	1.213	1.225
SIR over EUL										
TOTAL CASH INFLOW	\$1,751,717									
TOTAL C-PACE INVESTMENT	\$1,175,715									
SAVINGS-TO-INVESTMENT RATIO (SIR)	1.490									

<--- Approximate Maximum Possible C-PACE Funding

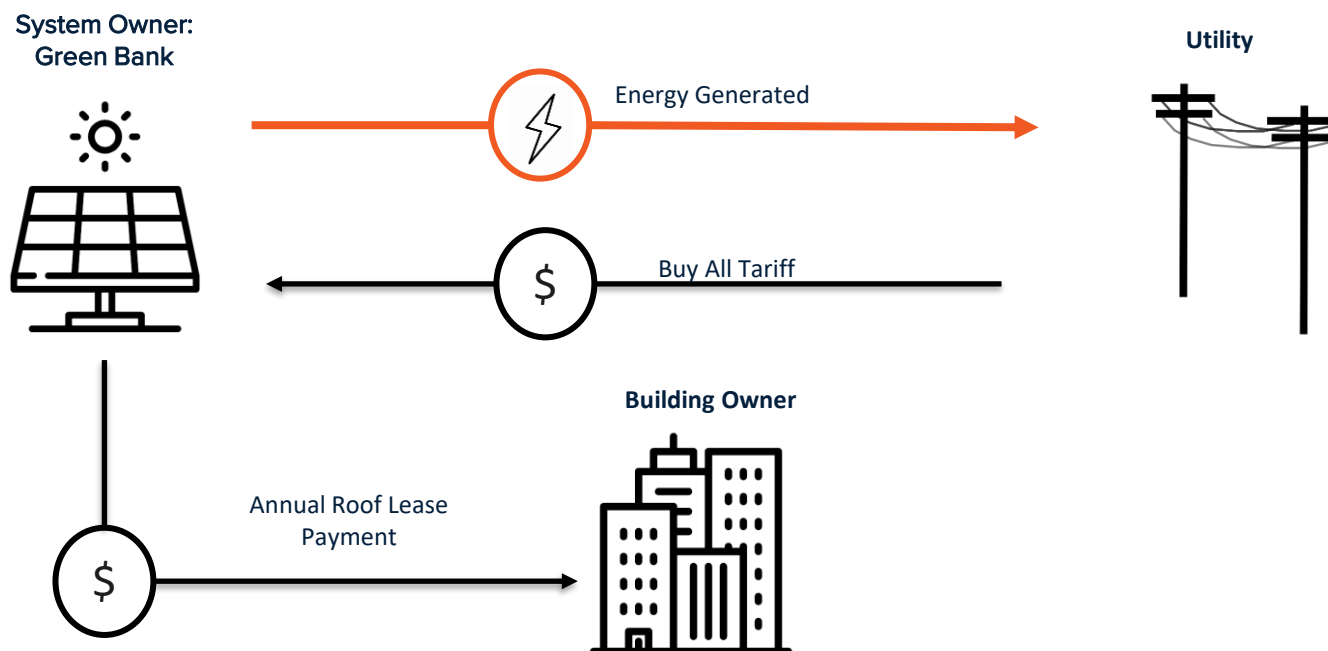
Green Bank Power Purchase Agreement



- No major changes to the Green Bank PPA under the new solar tariff
- No longer restrict projects to offsetting 85% of annual usage

Solar Roof Lease

How does a Roof Lease work?



Roof Lease between Green Bank and Property owner

Green Bank 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, and others that cannot monetize the solar investment tax credit (ITC)

Roof repairs can be part of the process.

Similar minimum system size

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.

Energy Storage Solutions

For your information!



Connecticut Green Bank is hosting a webinar in December on the new battery incentive program: Energy Storage Solutions

Please join us on Thursday, December 16th at 10:00 AM

Visit the Green Bank Events Calendar on ctgreenbank.com for registration info.

Questions?

Thank you!