

**Special Darien Board of Education**

**Facilities Committee Meeting**

**Thursday, May 13, 2021**

**8:30 a.m.**

**Darien Public Schools' Administrative Offices**

**35 Leroy Avenue**

**Board of Education Meeting Room**

**AGENDA**

1. Update on the Recommendation to Install Solar Panels on School Buildings
2. Public Comment\*
3. Adjournment

**Due to the current COVID-19 regulations and restrictions pertaining to public indoor gatherings, the Board of Education meeting will be available to the public via Zoom.**

**Those members of the community wishing to view only, should do so through the Darien Youtube link: <https://www.youtube.com/channel/UCUnvyKBFbFrTWQRuoB6OZA>**

**Those members of the community wishing to participate in public comment should join the meeting via Zoom:**

**<https://darienps.zoom.us/j/94347744037>**

**In order to reduce audio interference, members of the community are requested not to simultaneously view by Youtube while participating on Zoom**

**Michael J. Lynch**  
**Director of Facilities**  
Phone: (203)-656-7418 or (203)-656-7417  
Fax: (203)-656-3052  
E-mail: [MLynch@darienps.org](mailto:MLynch@darienps.org)

**Darien Public Schools**  
**Administrative Offices**  
35 Leroy Avenue  
P.O. Box 1167  
Darien, CT 06820-1167

## **MEMORANDUM**

To: Dr. Alan Addley and Richard Rudl  
From: Michael Lynch  
Date: May 11, 2021  
Subject: Solar Panel Installation

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The Connecticut General Assembly established the Connecticut Greenbank in July 2011. The purpose is to support green/clean energy initiatives through private-public partnerships. The CT Greenbank has a program, the Solar Municipal Assistance Program, that groups multiple smaller solar projects into one large project for the purpose of getting better financing terms, lower utility rates and guaranteed work performed by vendors through an RFP process.

After looking at several different models of how to approach the solar project, it is recommended that we use the Greenbank Program. The engineering consultant used by Greenbank has visited all of our buildings and is aware of our roof replacement schedule. Their proposal is to install solar panels on Hindley and Holmes this fall and then fall of 2022 put solar panels on Royle and the academic wing of Ox Ridge.

Mike Lynch

# SOLAR MAP

Municipal  
Assistance  
Program

**Darien 5/11/2021**

**Mackey Dykes**, VP of Financing Programs, CT Green Bank  
**Fiona Stewart**, Senior Manager, CT Green Bank  
**Allen Sabins**, Managing Partner at CSW Energy



# SOLAR

# MAP

Municipal Assistance Program



A quasi-public state agency and trusted partner to municipalities, is using solar to put towns and cities in charge of their energy costs. With the Green Bank's 'Green Bank Solar PPA,' municipalities can go solar, enjoying peace of mind and other benefits.



CSW Energy is experienced in working with municipalities to develop solar PV projects. Green Bank is working with CSW Energy to help municipalities to analyze their portfolio of buildings and identify opportunities for solar, get connected with a contractor.

# Connecticut Green Bank



**Help ensure Connecticut's energy security and community prosperity by realizing its environmental and economic opportunities through clean energy finance and investments.**

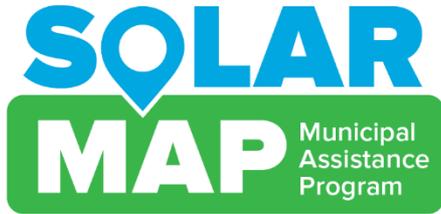


**Support the Governor's and legislature's energy strategy to achieve cleaner, cheaper and more reliable sources of energy while creating jobs and supporting local economic development**

## Less work. More benefits. Now even easier for towns and cities.

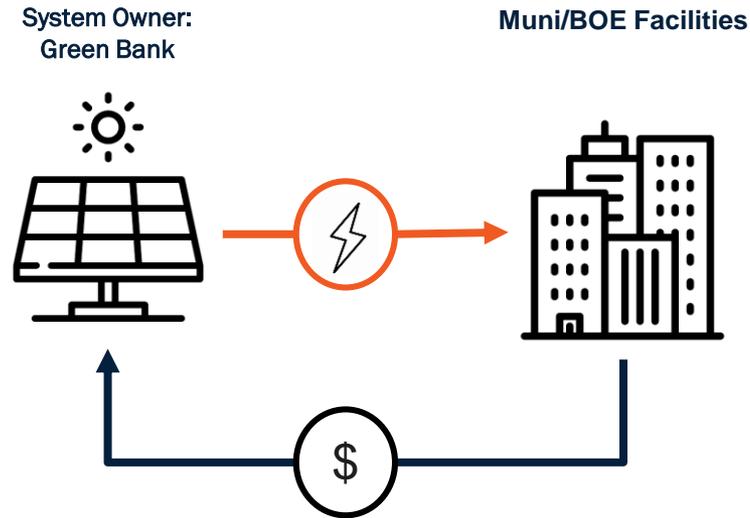
- Makes it even easier for municipalities to access renewable energy and achieve energy savings using the Green Bank Solar PPA
- Provides technical assistance support that simplifies every step of the process





- 1 Engage.** The SolarMAP team will meet with you to understand your municipality's goals, **gather information** and identify key participants, and explain the SolarMAP process in more detail.
- 2 Design.** Using the information you provide, the SolarMAP team will perform analysis of municipal sites, review energy demand, and **develop system designs**.
- 3 Review.** After you review the system designs, the SolarMAP team will **secure the utility incentives** (ZRECs) needed for each project and **solicit proposals** from qualified solar contractors and select the best proposal.
- 4 Execute.** Once a proposal has been selected and incentives secured, the SolarMAP team will work with you to **execute the PPA** and begin construction of the solar project(s).

# What is a Power Purchase Agreement (“PPA”)?



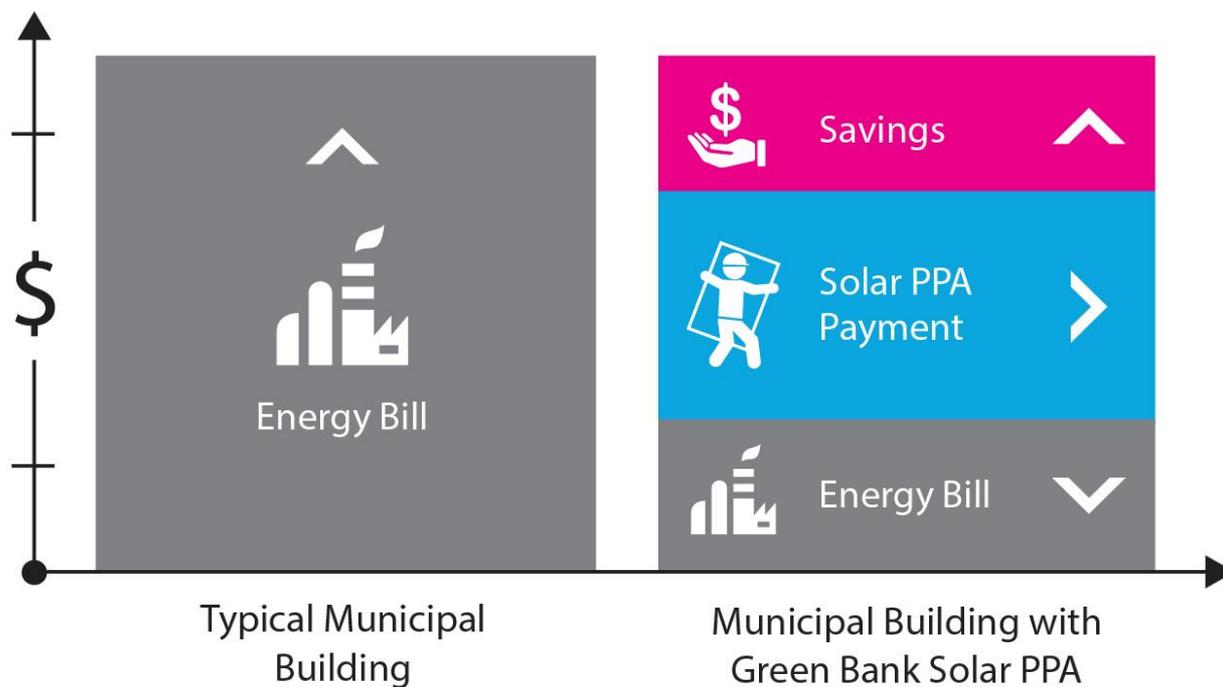
Contract between Seller (generates electricity) and Buyer (purchases electricity)

Green Bank is Seller:  
Oversees development, construction, & asset management

Municipality is Buyer:  
Purchases electricity from solar installed on property

# What are the Benefits of a PPA?

The value of solar PV comes from electricity cost savings!



# What are the Benefits of a PPA?

No upfront costs

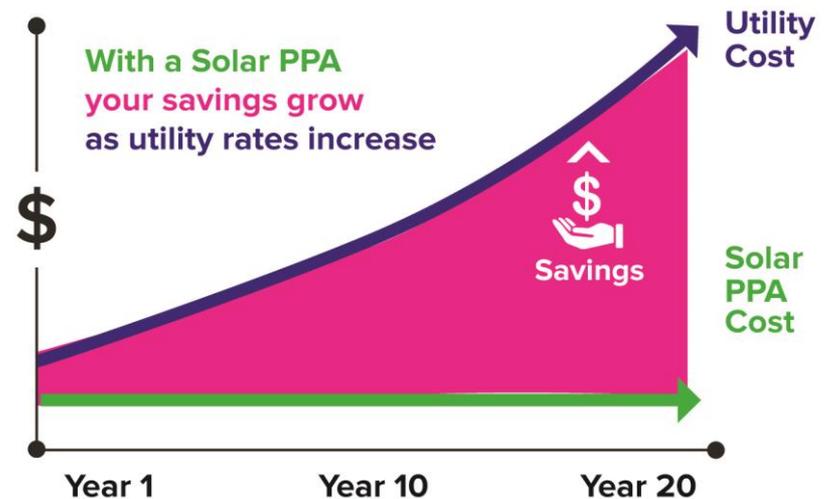
Lock in low electricity rate

Positive cash flow

No operations & maintenance costs

Preserve capital & credit lines

Managed by a third-party solar system owner



# Town of Coventry: Green Bank Solar PPA Case Study



- 8 solar PV systems (over 580 kW) financed with the Green Bank Solar PPA
- Includes Town Hall, Police Headquarters, Radio Tower Annex, and five Board of Education buildings including schools and warehouse space
- Six roof mounted solar PV systems and two carport solar PV systems



# Round 1 Results



**5**

**Municipalities**

**16**

**Projects in Total**

**3.5**

**Megawatts (dc) of Solar**

**22% -  
59%**

**Year 1 Discount from  
Current Utility Rate**

**\$4**

**Million in Term Savings**

# Darien

# Desktop Review (first look)

## Darien Schools



7 / 8

Passed / Total Sites

Can the roof: fit a 50kWac installation? >>>	Is the roof free from: roof pitches, HVAC units, etc. that could inhibit a solar installation?	Is the roof free from: any impact from tree shading, other buildings, etc.?	<<< If the roof is not viable: any potential for a ground-mount and/or carport installation?	Results from: Roof Size Obstructions Shading Ground/Carport	Utility bill review: does the site have the minimum kWh usage to meet the program system size requirements?
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Site Name	Site Address	Roof Size	Roof Obstructions	Shading	Ground or Carport	CSW Desk Review	CSW Usage Review
Darien High School	80 High School Lane, Darien, CT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pass	Pass
Middlesex Middle School	204 Hollow Tree Ridge Road, Darien, CT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pass	Pass
Hindley Elementary School	10 Nearwater Lane, Darien, CT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pass	Pass
Holmes Elementary School	18 Hoyt Street, Darien, CT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pass	Pass
Ox Ridge Elementary School	395 Mansfield Avenue, Darien, CT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pass	Pass
Royle Elementary School	133 Mansfield Avenue, Darien, CT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pass	Pass
Tokeneke Elementary School	7 Old Farm Road, Darien, CT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pass	Pass
Central Office Building	35 Leroy Avenue, Darien, CT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fail	

### Next Steps:

- CSW Desktop Review
- Utility Bills
- Third-party Supply\*
- Introductions

# Next Steps and Timeline



Sign Letter of Intent and incentive paperwork	May 2021
Submit projects for Utility incentives (ZRECs)	June 2021
RFP for Contractors	Fall 2021
Execute PPA	Q4 2021
Construction Start	Q1 2022



Questions?

# Thank you!

Contact:

Emily Basham, Senior Manager, CT Green Bank

[Emily.Basham@ctgreenbank.com](mailto:Emily.Basham@ctgreenbank.com)

860-258-7839

<https://www.ctgreenbank.com/solarmap-townsandcities>

# Appendix

# Desktop Review (first look)

## Darien Schools



Facility Information				Utility Information	
Facility ID	Facility Name	Facility Address	Roof Age (optional)	Account Number	Billing Zip Code
1	Darien High School	80 High School Lane, Darien, CT	17 years old	5110 267 2060	6820
2				5127 467 2054	
3	Middlesex Middle School	204 Hollow Tree Ridge Road, Darien, CT	22 years old	5158 257 2012	6820
4					
5	Hindley Elementary School	10 Nearwater Lane, Darien, CT	New: 08/20/21	5160 557 2080	6820
6					
7	Holmes Elementay School	18 Hoyt Street, Darien, CT	New: 08/20/21	5140 727 2079	6862
8					
9	Ox Ridge Elementary School	395 Mansfield Avenue, Darien, CT	New: 06/01/22	5192 866 2097*	6820
10					
11	Royle Elementary School	133 Mansfield Avenue, Darien, CT	New: 08/20/22	5145 986 2025	6820
12					
13	Tokeneke Elementary School	7 Old Farm Road, Darien, CT	11 years old	5111 263 4027	6820
14					
15	Central Office Building	35 Leroy Avenue, Darien, CT	7 and 1 year old	5152 244 6053	6820
16					
17					
18	* Old building, new building under construction				

# Green Bank Solar PPA

## *BOEs and Municipal*



- Ashford
- Bethany
- Bloomfield
- Branford
- Bridgeport
- Chaplin
- Coventry
- Darien
- Deep River (regional)
- Eastford
- Easton
- Ellington
- Essex
- Fairfield
- Falls Village
- Hampton
- Harwinton (regional)
- Lebanon
- Manchester
- Mansfield
- New Fairfield
- New Haven
- Newtown
- Orange
- Portland
- Ridgefield
- Salisbury
- Union
- Voluntown
- Woodbridge

## Program Benefits

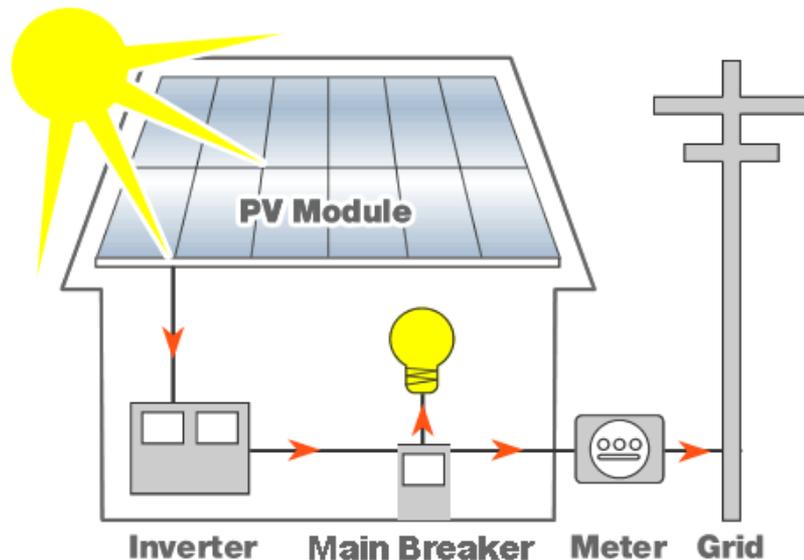
-  Trusted partner in the CT Green Bank, a quasi-state agency
-  Take advantage of the final year of the utility incentive program
-  Group your town's projects with other participating towns to receive competitive pricing
-  Support from start to finish developing any projects you choose to move forward with

# Solar PV systems use net metering



Solar PV systems are located **behind the meter**, meaning electricity is intended for onsite use

**Net metering** is a billing mechanism allowing electricity in excess of customer usage to be banked at the full retail rate and credited on an annual basis



- At year end, excess electricity generation for the year is reimbursed at wholesale rate
- Wholesale rate generally much lower than retail electricity tariff



**LETTER OF INTENT**

This Letter of Intent (“Letter”) is entered into on \_\_\_\_\_ (“Effective Date”), by and between the \_\_\_\_\_, a Connecticut municipality (the “Client”), and the Connecticut Green Bank, a Connecticut quasi-public state agency (“Green Bank”) with a principal place of business at 845 Brook Street, Rocky Hill, CT 06067.

WHEREAS, Client and the Green Bank are referred to collectively as the “Parties” to this Letter, and individually as a “Party,” wish to agree to the following:

This Letter sets forth certain non-binding understandings between the Parties.

1. This Letter sets forth the Parties’ desires and intentions with respect to solar photovoltaic systems (“Systems”) for the Client’s premises and/or Site referenced in sections 6 and 8 hereof and the Parties’ intention to negotiate in good faith during an exclusive period of 360 days, commencing with execution of this Letter, to reach a then binding agreement consisting of one or more specific agreements (together, the “Agreement”) to be mutually agreed.
2. The Systems will be financed, owned and operated by the Green Bank, its subsidiaries, or other third-party financier (“Financier”).
3. The Green Bank, along with its advisors (“Advisors”), will conduct site assessments and design and run a procurement process for a contractor (“Contractor”) to install the Systems for the designated site consistent within recognized industry guidelines, regulations and good industry practices.
4. The Client intends to have the Systems installed on its premises and enter into a mutually agreeable fixed or escalating contract for electricity generated by the Systems for a period of time, anticipated to be for a minimum of twenty years.
5. The transaction contemplated by this Letter is an agreement between the Client, the Green Bank (or its subsidiaries) and/or the Financier. The Parties agree to utilize good faith efforts to negotiate the terms of definitive Agreement that will govern the transaction.

**6. Systems considered:**

Municipal Building	Address

7. The Green Bank will apply to the Client utility's Low Emission Renewable Energy Certificate (LREC) and Zero Emission Renewable Energy Certificate (ZREC) Program for the Systems.
8. The Green Bank understands that the Client owns one or more property (each being a "Site") on which the Systems will be installed. If the Client is not the owner of the Site, the Client will provide the Green Bank with clear written assurance that the actual owner is agreeable to installation of the System(s) in accordance with the terms of the Agreement. Except for costs relating to ownership, design, construction, taxation, installation, operation, repair, replacement, inspection, and maintenance of the Systems, the Client will bear all costs, expenses, taxes and other obligations connected with Site ownership.
9. The Green Bank understands that the Client and/or its Board of Education is the customer of record for the local utility that provides electricity to the Client's facility.
10. The Green Bank (or its subsidiaries) or more likely a Financier will own the Systems, all power generated by the Systems, all tax-related benefits and incentives, all environmental credits and other attributes applicable to solar energy generated by the Systems. Similarly, the Green Bank or Financier shall bear all investment and costs associated with ownership, design, construction, taxation (except taxation noted in paragraph 8 hereof), installation, operation, repair, replacement, inspection, maintenance and removal (at the end of the Agreement) of the System(s). The Client understands that the Green Bank or Financier may assign its rights and or revenues under the Agreement for financing purposes or to a third party with relevant experience in commercial solar management without Client consent.
11. As part of the Agreement, the Client will receive and pay for 100% of the electrical energy generated by the Systems.
12. As part of the Agreement, the Client will grant the Green Bank (or its subsidiaries) and/or the Financier an irrevocable license or easement (subject to Green Bank's or Financier's discretion) to install and maintain the Systems on each Site and to access each Site as needed for the term of the Agreement.
13. The Systems installation shall comply with all federal, state, city codes, regulations and provisions. Systems installation cannot proceed until all necessary permits, consents and approvals have been obtained.
14. No Party to this Letter shall have any liability to any other Party for any losses, consequential, incidental or special damages, cost, expenses incurred by the other Party in the event negotiations among the Parties may be terminated in accordance with Paragraph 16. Except as may be provided for in the Agreement to be negotiated, each Party will bear its own expenses, legal, accounting and consulting fees relating to this project, whether or not the Agreement is closed.
15. Upon execution of this Letter and until the closing of the Agreement, the Client will give the Green Bank and its Advisors reasonable access and opportunity to inspect, without limitation, the Client's property and to conduct engineering and environmental inspections of the property and to provide the Green Bank and its Advisors with such information as may be reasonably requested pertaining to the Client's business and assets to the extent necessary to complete the Agreement.
16. The provisions of this Letter shall not constitute and are not intended to constitute a legal or

binding obligation, contract, or agreement between any of the Parties. Accordingly, the Parties agree that any Party to the negotiations contemplated in this Letter may unilaterally terminate the negotiations for any reason or no reason at the terminating Party's discretion by notifying the other Party of such termination in writing.

17. Any definitive agreement shall address insurance requirements, indemnity rights and System removal requirements.

(Signature page follows.)

IN WITNESS WHEREOF, the Parties have caused this Letter of Intent to be executed as of the date first written above.

CONNECTICUT GREEN BANK

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

SUPERINTENDENT

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

SUPERINTENDENT

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_