

**AGENDA
CHESHIRE ENERGY COMMISSION
MONDAY, MARCH 29, 2021, 7:00 PM
Via Zoom**

(PER EXECUTIVE ORDER OF THE GOVERNOR OF CONNECTICUT)

Public access made available through live streaming on YouTube at

https://www.youtube.com/channel/UC4_xey3QjJmwe57R_6K94Dw

Public comments accepted at Comments@cheshirect.org and by voice mail message at 203 271-6638.

Video will be available on Channel 14 and on demand at www.cheshirect.org as soon as possible.

I. CALL TO ORDER

II. DETERMINATION OF QUORUM

III. PLEDGE OF ALLEGIANCE

IV. APPROVAL OF MINUTES

A. February 22, 2021 – Regular Meeting

V. COMMUNICATIONS

VI. OLD BUSINESS

A. Energy Efficiency Projects

1. MaClary Athletic Complex – status of LED lighting project; cost/benefit summary
2. HES program for residential buildings – end date
3. I ♥ My Home – update

B. Benchmarking

1. Energy Star Portfolio Manager – database input and maintenance
2. Portfolio Manager – Slides from Part 2 Webinar, 2/24/21 - Using Benchmarking Results to Understand your Building's Performance:
https://www.energystar.gov/buildings/training/basics_benchmarking_complying_ordinances
3. Chris Smith – sub-committee to research new municipal energy efficiency/cost savings opportunities
4. Portfolio Manager - Part 3 Webinar scheduled for 3/30/21 at 1:00 PM
<https://esbuildings.webex.com/esbuildings/onstage/g.php?MTID=ef6c72f9fcea44d1433bf6b2abd7b1c1ef>

C. Publicity/Education/Outreach

1. News articles and letters to the editor

D. Clean Energy

1. Opportunities for additional solar car ports or PV arrays
2. Solar Marketplace Assistance Program (MAP) Opportunities

E. PBC Projects

1. Improvements to the existing locker rooms and the HVAC system at the Cheshire Police Station

F. Grants, Rebates, & Utility Programs

1. Early involvement of Eversource in all town building projects

G. Energy Reliability Program

1. Update on tree trimming

H. Coalition for Sustainable Cheshire

1. Feedback to coalition

VII. NEW BUSINESS

CHESHIRE ENERGY COMMISSION
MEETING MINUTES
February 22, 2021 – VIRTUAL ZOOM MEETING

I. CALL TO ORDER

Mr. Ogurick called the meeting to order at 7:00 PM.

II. DETERMINATION OF QUORUM

A quorum was determined to be present.

Commission Members Present: Richard Ogurick (Chairman), Walter Gayeski, Chris Smith, Dan Knudsen, Ryan O’Grady, George Romania, David Gavin

Staff Present: Daniel Bombero

Others Present: Peter Talbot, Town Council Liaison
Mackey Dykes, Connecticut Greenbank
Emily Basham, Connecticut Greenbank

III. PLEDGE OF ALLEGIANCE

All present pledged allegiance to the flag of the United States of America.

Mr. Ogurick introduced Mackey Dykes and Emily Basham from Connecticut Greenbank. Mr. Dykes and Ms. Basham presented to the group. Please refer to notes under “Solar Marketplace Assistance Program (MAP) Opportunity” under section VII. New Business.

IV. APPROVAL OF MINUTES

A. January 25, 2021 - Meeting Minutes

Note the following corrections:

A. 1. MaClary Athletic Complex – Change luminary to lumens.

F. Grants, Rebates & Utility Programs – change “SMZ Committee” to “SMC Committee”

MOTION by Mr. Smith to approve the meeting minutes.

SECONDED by Mr. O’Grady.

VOTE The motion passed unanimously.

V. COMMUNICATIONS

Mr. Ogurick noted that the press release regarding the HES audit has appeared in the Cheshire Herald several times. Mr. Knudsen reported that the release was also posted on the Cheshire Forum and has received positive feedback.

VI. OLD BUSINESS

A. Energy Efficiency Projects

1. MaClary Athletic Complex – status of LED lighting project; cost/benefit summary

Mr. Bombero reports that there has been no additional progress due to winter weather conditions. The project remains 40 % complete and two (2) poles have been retrofitted and completed to date.

2. Updated HES program for residential buildings – articles in local media; end date

Mr. Ogurick commented that he has seen the press release in the newspaper several times.

3. ! • My Home – update

Mr. Knudsen reported that 100 households are enrolled in this pilot program and 14 of those (14%) are from Cheshire. The commission members agreed that this is a direct result of advertising by their group.

B. Benchmarking

1. Energy Star Portfolio Manager – database maintenance

Mr. Ogurick forwarded a link to members of the Energy Commission to participate in Part II of the seminar. He encouraged members to participate in the second session even if they were unable to attend the first one. This seminar will provide participants with information on how to use the information which is obtained from the Energy Star Portfolio Manager database.

C. Publicity/Education/Outreach

1. News articles and letters to the editor

No information to report.

D. Clean Energy

1. Opportunities for additional solar car ports or PV arrays

Mr. Ogurick reiterated that the group may want to consider looking for opportunities for clean energy projects as part of the School Modernization project and the future development of the Chapman Property.

E. PBC Projects

1. Improvements to the existing locker rooms and the HVAC system at the Cheshire Police Department

Mr. Bombero had no new updates to report to the commission.
The project is still in the design phase.

F. Grants, Rebates & Utility Programs

1. Early Involvement of Eversource in all Town building project

Members discussed early involvement in the School Modernization project. When asked about the timeline for the School Modernization Project, Mr. Talbot reported that any final decisions would need to go to referendum. The project is in its infancy and there are many items which must be completed before the project reaches the referendum stage. At the January regular meeting, commission members discussed that they would like to have the ability to review the drawings and specifications and be able to provide feedback to the SMC Committee.

G. Energy Reliability Program – Update on tree trimming

Mr. Bombero reported that there are no new tree trimming updates to report.

H. Coalition for Sustainable Cheshire

1. Feedback to coalition

Mr. Ogurick shared that the Energy Commission will provide the Coalition with feedback and support them in their goal for obtaining certification.

VII. NEW BUSINESS

A. Solar Marketplace Assistance Program (MAP) Opportunity

Mackey Dykes and Emily Basham from CT Green Bank presented their Solar Municipal Assistance Program (MAP) to the group. Mr. Dykes presented an overview of the Solar MAP program which is a municipal assistance program that provides municipalities with the assistance they need to identify, finance and complete renewable energy projects which align with State and Federal initiatives for cleaner, cheaper, and more reliable sources of energy. The Solar Map team identifies potential renewable energy projects within Towns. They provide an analysis of the potential sites, assess energy demands, provide system designs, provide project financing and they secure the utility incentives (ZRECS) for each project. Mr. Dykes explained the benefits of the Power Purchase Agreement (PPA) to municipalities. The group was provided with an opportunity to ask questions about the program. Mr. Ogurick noted two (2) projects that have PPA Agreement's. These include the solar carport at police headquarters and the solar array over the former landfill. Mr. Ogurick asked about the role of Green Bank and asked if there is a market for virtual net metering projects and are there interested developers? Mr. Mackey explained that Green Bank takes on some of the risk and puts elements of the project together and their intention is not to displace private developers. Mr. Ogurick asked what steps would need to be taken if the Town was interested in a solar project such as placing solar panels on the roof of a school. Mr. Mackey explained that the Town would provide his firm with a list of potential sites being considered for the project. A desktop review would be performed to determine access for the potential sites. The desktop review takes into consideration things such as: trees, area of roof, age of roof and existing HVAC. A rating of "pass" or "fail" would be assigned to the site depending on how many disqualifiers are identified. Site visits and a feasibility assessment are completed and then a proposal is created. Finally, Green Bank initiates the Request for Proposal (RFP) and secures the incentives from the utilities (ZRECS).

Mr. Ogurick added that the Energy Star Portfolio Manager could be used to make a feasibility assessment. When asked about the timeline of a project, the representative explained that it takes roughly one (1) year to complete a project. Ms. Basham added that their role is to bundle similar projects with other Towns to increase the overall cost savings. Currently there are five (5) other municipalities in Connecticut participating in this program.

Chris Smith stated that he is familiar with the program and expressed that it is worth looking into. He also shared that battery storage was a positive technology to consider.

Mr. O'Grady shared that he has had personal experience with CT Greenbank and that this is a quality program which has saved him money. Mr. Knudsen added that the program is advantageous and can provide better rates by bundling projects with multiple municipalities. Mr. Romania asked how CT Green Bank makes their profit. Mr. Mackey stated that they keep the State and Federal incentives in return for their services. The Town saves money on the purchase of power.

MOTION by Mr. O'Grady to share the information from the Energy Star Portfolio Manager with CT Green Bank.

SECONDED by Mr. Smith

VOTE The motion passed unanimously.

MOTION by Chris Smith to add a discussion on Storm Isaias Cost Recovery under "New Business."

SECONDED by Mr. O'Grady.

VOTE The motion passed unanimously.

B. Storm Isaias Cost Recovery Discussion

Mr. Smith addressed the group and explained that Eversource Energy, is preparing to pass along costs they incurred during Tropical Storm Isaias to their ratepayers. A group discussion ensued about Eversource's lack of communication and lack of response time during and after the storm which resulted in at least \$230 million for costs in Connecticut. Mr. Smith asked the Commission to consider their role and take action to address their concerns in writing to the Public Utilities Regulatory Authority (PURA) and ask that ratepayers not incur these costs. Mr. Smith will draft a letter to PURA, supporting consumers. Mr. Smith noted that the Consumer Council, an independent advocate for consumers, could also make a case to PURA.

VIII. ADJOURNMENT

A motion to adjourn was made by Mr. Smith, seconded by Mr. O'Grady and the meeting was adjourned at 9:00 PM.

ATTEST



Anne McBain, Acting secretary

(attachments)



Emily Basham, Senior Manager, CT Green Bank
Mackey Dykes, VP of Financing Programs, CT Green Bank
Fiona Stewart, Manager on Finance Team, CT Green Bank
Allen Sabins, Managing Partner at CSW Energy



Agenda

- ❖ What is the CT Green Bank
- ❖ Solar MAP program
- ❖ Green Bank Solar PPA
- ❖ Next Steps
- ❖ Q&A



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



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.



Less work. More benefits.

Now even easier for towns and cities.

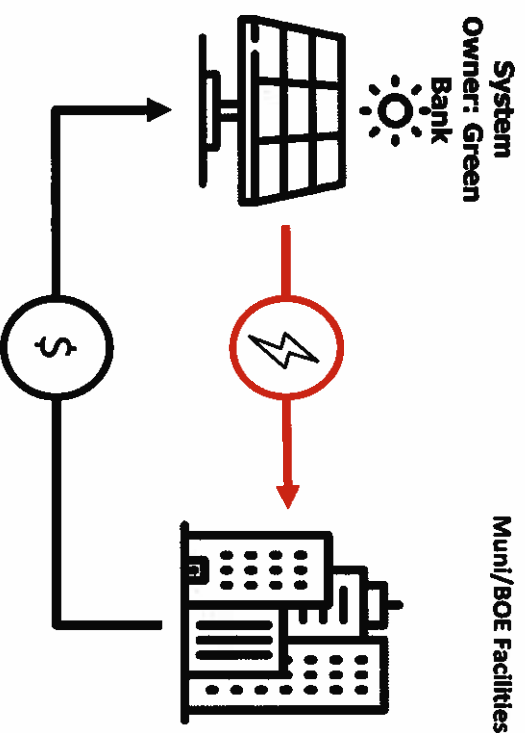
- Makes it even easier for municipalities to access renewable energy and achieve energy savings using the Green Bank Solar PPA
- Provides technical assistance support that simplifies every step of the process





- 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)

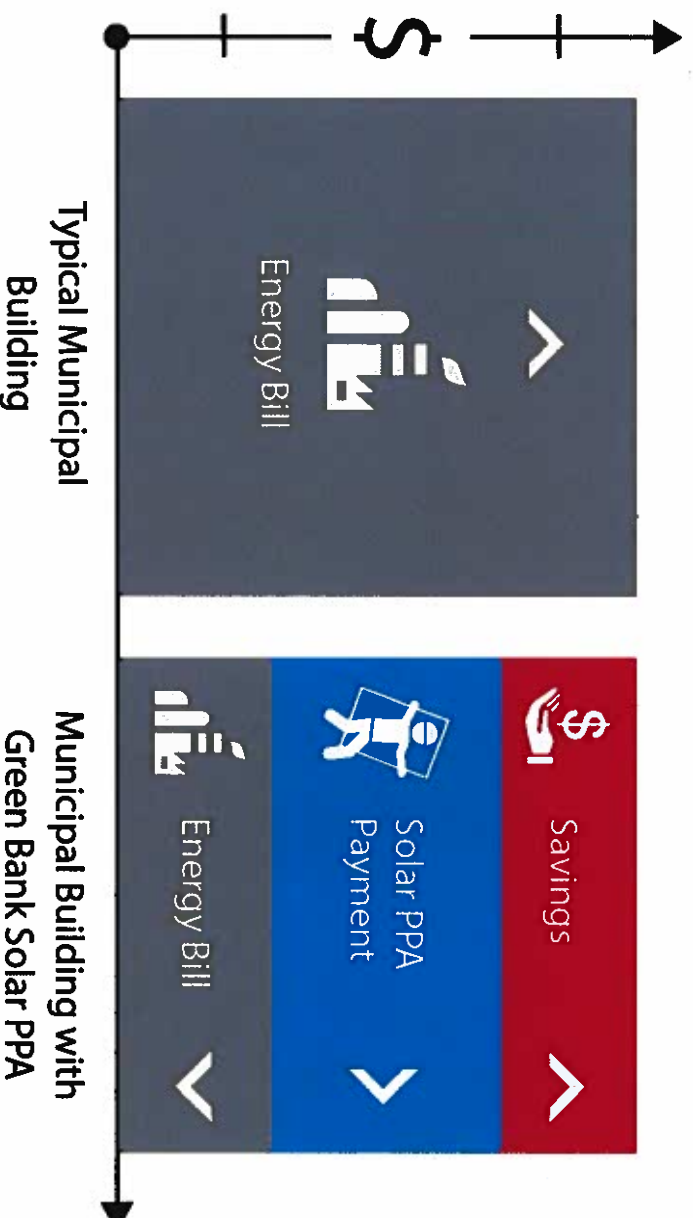
Green Bank is Seller:
Oversees development,
construction, & asset
management

Municipality is Buyer:
Purchases electricity
from solar installed on
property

What are the Benefits of a PPA?



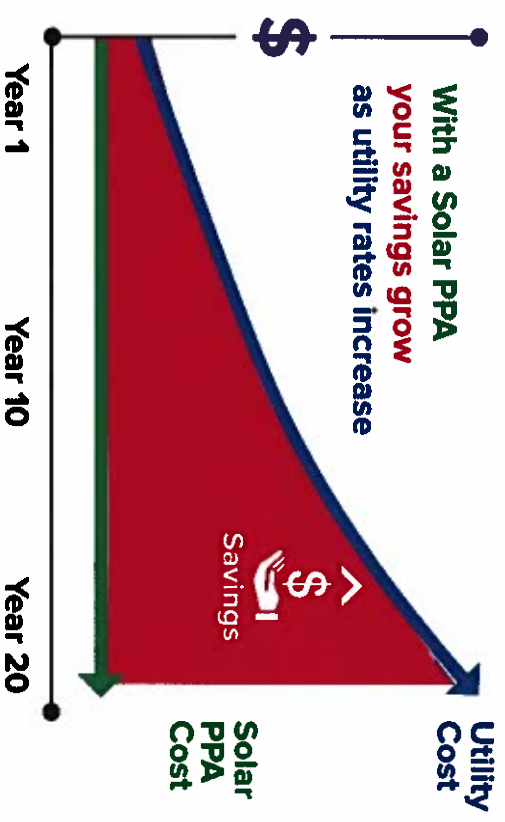
The value of solar PV comes from electricity cost savings!



*Representative project for illustrative purposes only

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



Green Bank Solar PPA

BOEs and Municipal

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

Round 1 Results



5

Municipalities

17

Projects in Total

3.5

Megawatts (dc) of Solar

22% -
59%

**Year 1 Discount from
Current Utility Rate**

\$4.1

Million in Term Savings

Sample Deliverables





Desktop Review (first look)



Town of Example Desktop Review

Facility Information		CSW Desktop Review				
Site Name	Site Address	Roof Size?	Roof Obstruction	Shading?	Ground?	Result
Ball Field	222 Reader Street	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Fail
Memorial Park	55 Walnut Street	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Fail
Pump Station	144 High Street	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fail
Dog Pound	55 Husky Lane	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fail
Water and Sewer	44 Turner Circle	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Pass
Town Hall	123 Main Street	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Pass
Community Center	445 Main Street	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pass
Fire Department	112 Sunny Drive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pass
Police Station	911 Turner Lane	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Pass
Senior Center	123 Acorn Lane	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Pass
Elementary School	677 Front Street	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Pass
Middle School	3211 Pencil Drive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pass
High School	644 Elm Street	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Pass

9 / 13

Passed / Total Sites

- Next Steps:
- ☒ CSW Desktop Review
 - ☐ Utility Bills
 - ☐ Third-Party Supply
 - ☐ Introductions for Site Visits

Proposed Sites: *Example Town School*

Project Details	
Project size (kW DC)	160
Estimated Annual Production (kWh)	200,000
Effective Utility Rate	\$0.11
Preliminary Pricing	
Preliminary 10% Discount Met	Yes
% Solar Offset to Utility	85%



Example Town School

Preliminary Savings

Preliminary Savings		
Term Savings	\$	128,314
Average Annual Savings	\$	6,416
First Year Savings	\$	2,200
<i>Operations & Maintenance Cost Included</i>		

Model and Finance Assumptions		
System Size	kW	160 kW
Solar Energy Generated		200,000 kWh
Annual Solar System Degradation		0.64%
Solar Energy PPA Price		\$0.099 /kWh
Solar Energy Escalator		0.00%
Utility Energy Price		\$0.110 /kWh
Utility Energy Escalator		2.00%



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

Next Steps and Timeline

- One-on-one meeting with SolarMAP team
- Submit list of municipal addresses for initial review

Initial meetings	January 2021
Project Development & Project list finalized	Q1 2021
Sign Letter of Intent and incentive paperwork	April 2021
Submit projects for Utility incentives (ZRECs)	June/July 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

860-258-7839

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



Appendix

Solar MAP Program Notes



- Geared towards municipalities who lack the resources for solar procurement internally and would require technical assistance to put solar on municipal sites.
- Behind-the-Meter Solar PV projects only for Solar MAP
- Municipalities must have a 1-on-1 meeting with municipal representatives by February 1st 2021 to participate in this year's solar procurement.



Green Bank Power Purchase Agreement (“PPA”)?

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

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

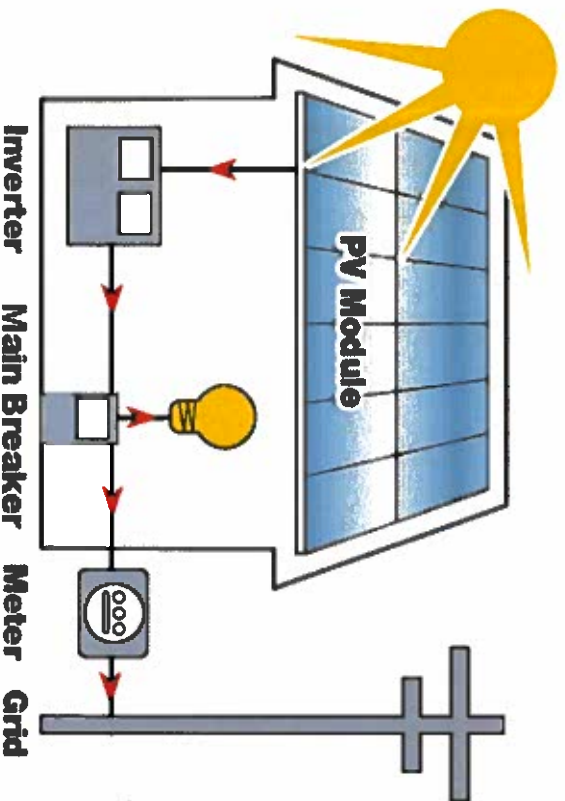
Municipality is
Buyer: Purchases
electricity from
solar installed on
property

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

Solar MAP Summary



Project Scope &
Pre-development

Green Bank analyzes municipal sites & develops system designs
Green Bank solicits competitive proposals



Development &
Engineering

Green Bank develops PPA with Municipality
Green Bank & Contractor develop & engineer project
Green Bank & Contractor coordinate on documentation



Construction

PPA signed between **Green Bank & Municipality**; EPC signed between **Contractor & Green Bank**
Contractor constructs project & receives construction payments from **Green Bank**



Operation &
Payment

After Construction Complete, **Green Bank** operates & maintains solar system over the term of the agreement.
Municipality pays the PPA on a monthly "actuals" basis directly to the **Green Bank**

- "Actuals" = paying for exactly what is generated based off of the solar monitoring system