

**AGENDA**  
**CHESHIRE ENERGY COMMISSION**  
**MONDAY, JANUARY 31, 2022, 7:00 PM**  
**Via Zoom**

*Public access made available through live streaming on YouTube at  
[https://www.youtube.com/channel/UC4\\_xey3QjJmwe57R\\_6K94Dw](https://www.youtube.com/channel/UC4_xey3QjJmwe57R_6K94Dw)*

*Public comments accepted at [Comments@cheshirect.org](mailto: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](http://www.cheshirect.org) as soon as possible*

**I. CALL TO ORDER**

**II. DETERMINATION OF QUORUM**

**III. PLEDGE OF ALLEGIANCE**

**IV. APPROVAL OF MINUTES**

A. December 1, 2021 – Special Meeting

**V. COMMUNICATIONS**

**VI. OLD BUSINESS**

A. Energy Efficiency Projects

1. I ♥ My Home – update
2. CHP at Cheshire Community Pool - 2021 average operating rate = 59%
3. Bartlem Park concession stand – energy waste

B. Benchmarking

1. Energy Star Portfolio Manager – database input and maintenance
2. New municipal energy efficiency/cost savings opportunities
3. Setting performance goals in Portfolio Manager – webinar Wednesday, 2/9/22, 2:00 pm

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, charging stations
2. Build Back Better legislation has a provision for "direct pay" incentives for solar for municipalities and other entities that don't benefit from a tax credit and prefer not to or can't use a PPA.

E. PBC Projects

1. Quinnipiac Park bathroom renovation project

F. Grants, Rebates, & Utility Programs

1. Early involvement of Eversource in all town building projects
2. Spreadsheet of important dates – programs and grants

G. Energy Reliability Program

1. Update on tree trimming

H. Coalition for Sustainable Cheshire

1. Action Item 7.1 - Benchmark and Track Energy Use - submit materials for next round for Sustainable CT

I. School Modernization – involvement of Energy Commission

**VII. NEW BUSINESS**

A. Energy Commission reappointments (Gayeski, O'Grady)

B. Cheshire Housing Authority - backup generator for Beachport; solar for 44 units on South Main Street

C. Reversible Central Air Conditioning - \$300 - \$500 incremental cost for heat pumps

D. Virtual Net Metering – David Veleber, Dean Fiske

E. Solar Roof Lease program - <https://www.ctgreenbank.com/wp-content/uploads/2022/01/CGB-solar-roof-lease-1-20-2022.pdf>

**CHESHIRE ENERGY**  
**MEETING MINUTES**  
**DECEMBER 1, 2021-VIRTUAL ZOOM**  
**(MEETING RESCHEDULED FROM NOVEMBER 29, 2021)**

**I. CALL TO ORDER**

Chairman Ogurick called the meeting to order at 7:04 PM.

**II. DETERMINATION OF QUORUM**

A quorum was present.

**Commission Members Present:** Richard Ogurick (Chairman), Dan Knudsen, Walter Gayeski, Ryan O'Grady, David Gavin

**Staff Present:** Daniel Bombero

**Others Present:** Tim White, BOE

**III. PLEDGE OF ALLEGIANCE**

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

**IV. APPROVAL OF MINUTES**

**A. October 25, 2021- Meeting Minutes**

**MOTION** by Mr. Gayeski to approve the Meeting Minutes from October 25, 2021 with the following corrections:

1. VI.A.,1,Change "Feasibility Fair" to "Sustainability Fair."
2. VI.D.,2, Change Economic Developer to Economic Coordinator and Grant Writer.
3. VII. B, Clarification - There will not be a webinar on January 1, 2022, instead, there will be a program called "Residential Renewable Energy Solutions" starting after the 1<sup>st</sup> of the year in 2022.

**SECONDED** by Mr. O'Grady

**VOTE** unanimous.

**V. COMMUNICATIONS**

Mr. Ogurick shared communications he had with the Town, the Board of Education and Council representatives about meeting with Colliers regarding the School Modernization project. Mr. Ogurick shared that he reached out to the Town Council and the Board of Education expressing that the advisory committee would like to meet with Colliers early on in the process to discuss energy efficiency, resiliency, sustainability, and the possibility of net-zero construction in the new school(s) being proposed by the School Modernization Committee.

## **VI. OLD BUSINESS**

### **A. Energy Efficiency Projects**

#### **1. I Heart My Home - update**

Mr. Knudsen had no new updates to report.

#### **2. Year 5 Annual M & V Report**

Mr. Bombero reported that the Town has not convened to discuss the report and that no questions or concerns had been forwarded to staff for review to date. Mr. Ogurick noted he would remove this item from future agendas.

#### **3. CHP system at Cheshire Community Pool - Aegis reports**

Mr. Gavin shared his pool energy analysis (attached) with the group and a discussion ensued. The cogeneration unit was reported to be working at 90 % efficiency. It was concluded that when the unit is shut down for long periods of time, it's efficiency cannot be maximized. The group further discussed how to optimize the cogeneration unit system and questioned who would be the responsible party to communicate if the unit would need to be shut down for repairs in the future.

### **B. Benchmarking**

#### **1. Energy Star Portfolio Manager – database maintenance**

No new information was reported.

#### **2. New municipal energy efficiency/cost savings opportunities.**

No new information was reported.

### **C. Publicity/Education/Outreach**

#### **1. News articles and letters to the editor**

No news articles or letters to the editor were shared.

### **D. Clean Energy**

#### **1. Opportunities for additional solar car ports or PV Arrays**

No new information was reported.

2. Feedback from Planning Committee on the Solar MAP proposals

No new information was reported.

3. Residential Renewable Energy Solutions – new UI and Eversource incentive program:

file:///C:/Users/roquick/Downloads/Renewable%20Energy%20Solutions%20Wrbinar%20Final%2011.2.2021.pdf

No new information was reported.

**E. PBC Projects**

1. Quinnipiac Park Bathroom renovation project

Mr. Bombero reported that he submitted the Energy Commission's comments to the PBC at their meeting on November 17<sup>th</sup>. The Commission requested that the comments be forwarded to the Architect, Jan Wojas, for review and comment. Mr. Bombero will forward the Energy Commission members an email with the designer's responses.

**F. Grants, Rebates & Utility Programs**

1. Early Involvement of Eversource in all Town building projects

No new information was reported.

**G. Energy Reliability Program**

1. Update on tree trimming

No new information was reported.

**H. Coalition for Sustainable Cheshire**

1. Feedback to coalition

No new information was reported.

**VII. NEW BUSINESS**

**A. Meeting with Colliers on energy efficiency/sustainability in new schools**

Tim White, Board of Education member, introduced himself to the group and updated members on the status of the School Modernization project, his role in the project and his concerns about energy and sustainability. Mr. White agreed that a meeting with Colliers, who represents the Town, would be beneficial and timely. The group agreed that the Energy Commission should be involved at the inception of the project and not be inserted at the end of it, since sustainability, energy efficiency and the possibility of net zero schools are very important considerations. Mr. White and the Energy Commission members agreed that they would like to look at the costs

involved with constructing Net Zero schools, similar to those constructed in Mansfield and Manchester.

Mr. White shared what he believes are the four (4) stages in the process of the School Modernization initiative which include voting by the Board of Education, voting by the Town Council, discussion of energy efficiency and then going to referendum. Mr. White expressed his concern that sustainability and energy efficiency may not be considered early on in this process. Members talked about how these energy and environmental considerations should be brought to the attention of the general public, so that residents are well informed by the referendum stage.

All agreed that a meeting with Colliers in December would be timely. It would allow the Energy Commission to share their view that energy efficiency and sustainability be upfront considerations along with air quality and other public health concerns. All agreed that it is critical to consider building location and orientation early on so that future solar and other sustainability projects can be considered. Mr. White likened the process to a person thinking about their energy costs after, not prior to, purchasing a new home.

Chairman Ogurick will formulate a list of items he would like to address with Colliers at a December meeting, date to be determined. He will circulate the list to Energy Commission members for their input prior to the meeting.

**B. Energy Policy**

No new information was reported

**C. Bartlem Park concession stand-energy waste**

Mr. Ogurick will reach out to Mr. Gawlak, Recreation Director, to discuss whether or not the concession stand is unoccupied and to determine where the energy is being consumed.

**D. Energy Storage Solutions-new statewide incentive program; webinar on 12/9/21, 12:00-1:00 PM**

Chairman Ogurick shared that the webinar is a one hour introduction to energy storage solutions. He will forward the link to members of the commission.

**E. Potential merger of Energy Commission and Environmental Commission**

Chairman Ogurick polled the group regarding the potential merger of the Energy Commission and the Environmental Commission. Mr. Ogurick noted that there may be no choice in the matter and that Town Council saw overlap between the two commissions. He also shared that combining commissions is not a new idea and is a common practice in other towns. After a brief discussion, members concluded that they collectively would not be in favor of a merger, which has the potential to dilute their focus and minimize their purpose.

F. Approve 2022 Meeting Dates

**MOTION** by Mr. Gavin to approve the 2022 Meeting dates

**SECONDED** by Mr. O'Grady

**VOTE** unanimous

VIII. ADJOURNMENT

A motion to adjourn was made by Mr. Gavin, seconded by Mr. Knudsen and the meeting was adjourned at 8:45PM.

ATTEST

A handwritten signature in cursive script, appearing to read "Anne McBain".

Anne McBain, Acting Secretary

## **"Energy History of the Cheshire Municipal Pool" – By David Gavin 12/01/2021**

**Below I've tried to capture the three annual energy usage stages of the pools life with what might be deemed as typical years of energy consumption.**

- 1. The original bubble which covered the pool during the cool/cold months was removed and the pool operated as an open air structure . This version collapsed twice under snow load. I have not included the second bubble that had marginal energy savings but was not code compliant, required a new air makeup unit, and failed during a snowstorm before installation of the new air supply.**
- 2. The current permanent structure. The Energy commission served on the PBC subcommittee overseeing the construction, and finally**
- 3. That structure operating with the added 35kW cogeneration unit.**

**The original bubble was an heated air-supported vinyl structure, about 1 MM.cubic feet, had no heat recapture of exhausted air, essentially no insulation, and was removed in May and put up again in Sept. an operational loss of about a month during that process. Lighting was with energy intensive halogen with relatively poor life cycle, operational costs improved during the summer as no lighting, or air heating was required.**

**The new structure we now have was, per the recommendations of the Energy Commission, who served on the PBC pool selection and build subcommittee, designed with energy savings that included:**

- galvanized steel framed permanent structure wrapped with double-walled vinyl fabric**
- R20 roof and siding insulation**
- insulated garage-type doors on 3 sides to give an open, cooler ambience during summer**
- heat recovery on exhausted air**
- indirect LED lighting, now required during all hours of operation**
- resizing of new, more efficient boilers, improved pumps.**

**The third case is the addition of a 35kW generator with engine heat recovery to supplement water heating.**

# **ENERGY USAGE FROM BUBBLE TO GOGEN**

	<b>gas CCF</b>	<b>electrcity kWh</b>	<b>cost\$</b>
<b>2008 Bubble</b>	<b>146659</b>	<b>521606</b>	<b>311115</b>
<b>2017 new building</b>	<b>118060</b>	<b>517073</b>	<b>165760</b>
<b>2019 co gen added</b>	<b>105960</b>	<b>224359</b>	<b>118051</b>

**these data might not be as typical as desired due to operations being affected for a variety of reasons, including Covid 19.**

**The key to successful operation is to keep the Cogen unit running at 90% or better and optimizing the overall operations management system,**



## VI. A. 2. Cogen Unit Community Pool

**McBain, Anne**

**From:** David Gavin <david.gavin@frontier.cor>  
**Sent:** Saturday, January 15, 2022 3:44 PM  
**To:** Chrissmithct@gmail.com; danknudsenct@gmail.com; Bombero, Daniel J.; Ryan064@hotmail.com; weg600@cox.net; ogurick@aol.com; McBain, Anne  
**Subject:** cogen at pool 2021 monthly operating rates

below is % operating rate at pool we only save energy and \$ when operating at above 90%. note some + 100% values- these represent more that 30.33 day periods. we need to understand the low rate months and how to optimize and give priority to the cogenerator verses the main boiler heating. we also get a lower gas cost rate for cogen

<b>cogen performance past year 2021</b>				
<b>start date</b>	<b>end date</b>	<b>ccf (hundred cubic feet)</b>	<b>Total Cost (\$)</b>	<b>% running</b>
12/22/20	1/31/21	811	486.12	28.4
1/31/21	2/28/21	408	265.09	14.3
2/28/21	3/31/21	593	361.9	20.8
3/31/21	4/30/21	555	339.76	19.4
4/30/21	5/31/21	2,135	1,167.21	74.8
5/31/21	6/30/21	2,764	1,500.02	96.8
6/30/21	7/31/21	2,135	1,181.30	74.8
7/31/21	8/31/21	2,876	1,590.22	100.8
8/31/21	9/30/21	2,821	1,739.62	98.8
9/30/21	10/31/21	2,993	1,962.14	105
10/31/21	11/30/21	1,383	956.97	48.5
11/30/21	12/31/21	885	639	31.0
<b>total</b>		<b>20359</b>		
<b>month ave/past yr.</b>		<b>1697</b>	<b>12189</b>	<b>713.3</b>
<b>ave cost\$</b>			<b>0.60</b>	
	mon. ave%	59.4		
	100%/month	<b>2854</b>		



# **State, Agriculture, Municipalities**

## **SAM Bill Credit Auction**

**2022**

## **SAM Host Auction**

- SAM Host adopts one or more remote solar systems to be submitted into the SAM Auction. If the solar system wins the auction, the Sam Host will secure electric bill savings (generation and delivery charge) for 20 years.
- SAM Host is guaranteed 20% electric bill savings on the generation portion of the bill (plus an 80%/60%/40% distribution charge discount) for the Beneficial Accounts for 20 years.
- The remote solar system(s) do not need to be located on the SAM Host property per se but are subject to a site control or similar agreement.
- Sam Host's current and future electricity purchasing arrangements with Eversource, UI, and competitive electricity suppliers do not change.
- By adopting the remote solar system, the SAM Host will be helping to achieve its clean energy goals!



## **Beneficial Accounts and Electric Bill Credits**

- SAM Host is allowed up to five Beneficial Accounts per solar/fuel cell system meter. Towns are allowed to aggregate all accounts.
- SAM Beneficial Accounts include schools, city hall, police stations, fire stations, community centers, senior centers, libraries, water treatment plants, street lighting, etc., and any state facilities.
- SAM electric bill credits plus the delivery charge reduction are applied to the SAM Host Beneficial Accounts each month and are based on the remote solar system's monthly power production (kWh).
- SAM Host will save 20% on the Beneficial Accounts' electric bills (generation portion) plus distribution charge discounts at 80%/60%/40% for 20 years.



## Examples of Past and Existing VNM Bill Credit Projects

PROJECT	SIZE	PRODUCTION	Savings 1 <sup>st</sup> Year	Savings 20 Years
Bristol	1.2 MW	1,200,000	\$91,332	\$1,955,813
Putnam	1.2 MW	1,200,000	\$91,332	\$1,955,813
Bethlehem 1	1.2 MW	1,200,000	\$91,332	\$1,955,813
Bethlehem 2	1.2 MW	1,200,000	\$91,332	\$1,955,813

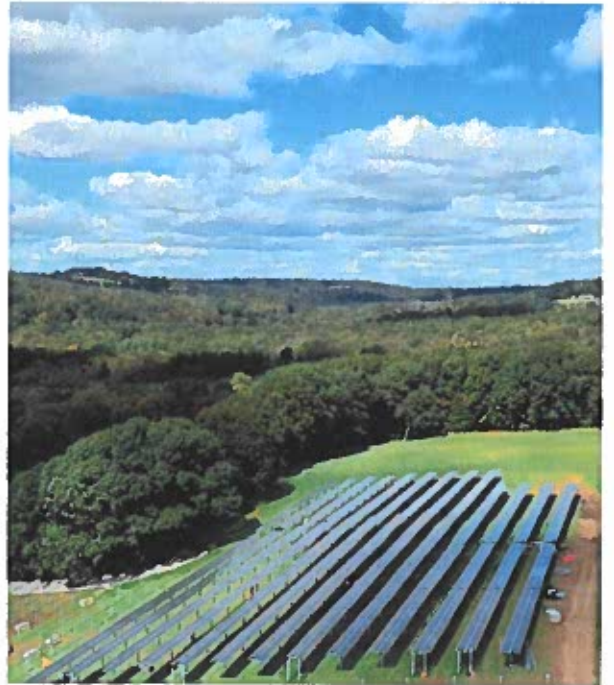


**Bristol, CT**



MLG | **MICHAUD**  
RENEWABLE ENERGY LAW IS OUR BUSINESS **LAWGROUP**

**Bethlehem, CT**



**Putnam, CT**



## **SAM Auction - Next Steps**

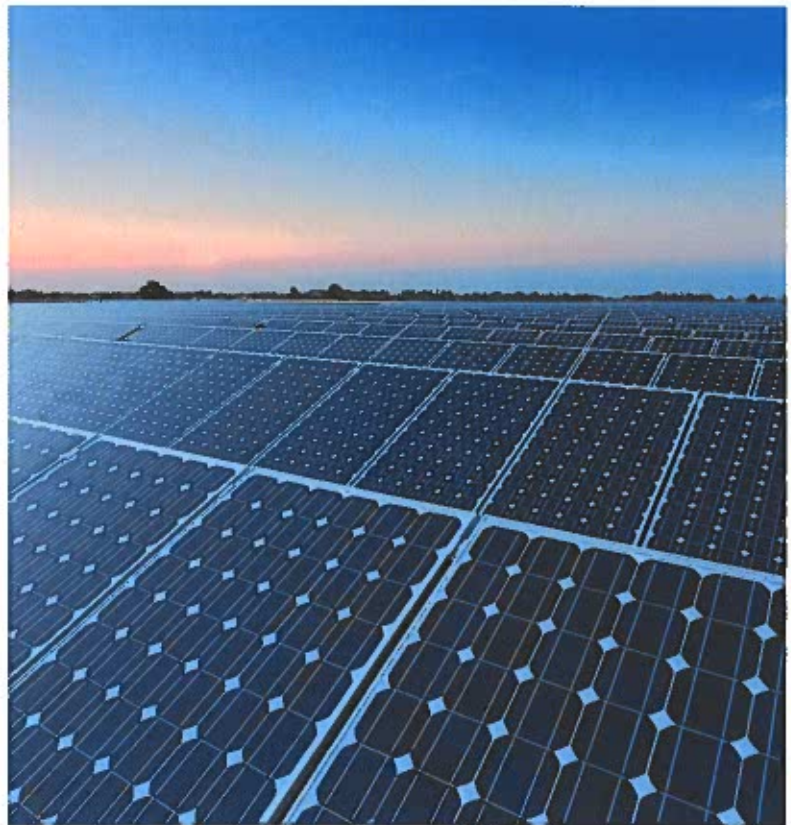
- SAM Host executes the SAM Auction Agreement
- SAM Host signs the Eversource or UI Beneficial Account Certification Form
- SAM Host completes the Eversource or UI Beneficial Account listing form.
- The remote solar system(s) are bid into the SAM Auction.
- If the solar system wins the Sam auction, the solar system is constructed.
- At the solar system commercial operation date, the SAM Host will start to receive credits and delivery charge reductions for the Beneficial Accounts on the monthly Eversource or UI electric bills.





# Questions?

MLG | **MICHAUD**  
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## solar roof lease

### VII. E - Solar Roof Lease Program



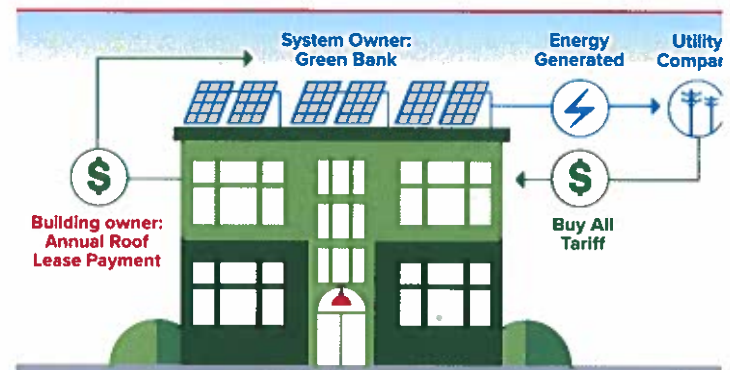
**Make solar simple and turn sunlight into an income stream.** As a building owner, you are always seeking ways to improve your bottom line by cutting costs, adding new revenue streams, and making improvements. Have you considered putting your roof to work for you, similar to leasing space for a billboard or cell tower?



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.

#### With a Solar Roof Lease through the Green Bank you can:

- Earn fixed payments, which could be thousands of dollars annually depending on the size of your roof
- Enjoy solar without the stress and worries of system ownership. The Green Bank or its partner own the system and are responsible for performance and maintenance.
- "Go solar" without any upfront costs, incurring any debt, or no financial underwriting. The review process is quicker and simpler than with other solar options. Excellent solar option for building owners who are credit challenged, have limited equity in their property, or who cannot monetize tax credits.
- Let your customers, employers and competitors see that you're making a positive impact on the environment by harnessing the power of the sun.
- Make improvements to your roof as part of the installation process.



- Roof not suitable for solar? Consider leasing some unused land (ground mount solar) or combine solar with a carport in your parking lot.
- Transfer the lease to a new building owner if you sell the property. An income generating roof can improve the property value at the time of sale.

*The roof lease is offered through qualified solar contractors in your area that will help design a project tailored for your roof.*