

**AGENDA
CHESHIRE ENERGY COMMISSION
MONDAY, JUNE 27, 2022, 7:00 PM**

Via Zoom

*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. April 25, 2022 (May meeting no quorum)

V. COMMUNICATIONS

VI. OLD BUSINESS

- A. Energy Efficiency Projects
 - 1. CHP at Cheshire Community Pool - operating rate (utilization)
 - 2. Bartlem Park concession stand – energy waste
- B. Benchmarking
 - 1. Energy Star Portfolio Manager – database input and maintenance
- C. Publicity/Education/Outreach
 - 1. News articles and letters to the editor
 - 2. Outreach advertisement – Chris Smith
 - 3. Life Cycle Cost letter – Cheshire Forum (5/3/22) and Cheshire Herald (5/12/22)
- D. Clean Energy
 - 1. New municipal energy efficiency/cost savings opportunities
 - 2. Opportunities for additional solar car ports or PV arrays, charging stations
 - 3. Net-zero pilot program
 - 4. SAM/Virtual Net Metering Project – response to Dean Fiske
- E. PBC Projects
- 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. Benchmark and Track Energy Use – information on Portfolio Manager for Silver Status for Sustainable CT
 - 2. Response from Amy Thompson of UCONN
- I. School Modernization – resources for high performance schools
 - 1. Communication with Chuck Warrington of Colliers

VII. NEW BUSINESS

- A. Appointment of new commissioner
- B. New School IAQ legislation
- C. Fall Festival – participation, theme, volunteers
- D. Phase 2+ of Next Generation Schools plan – consider another ESPC?

- E. Solar Energy Evolution and Diffusion Studies (SEEDS) program – SmartPower energy storage campaigns
- F. Battery storage incentives for homeowners - Tuesday, July 12 from 6 - 7 pm, <https://energystoragect.com/energy-storage-solutions-for-homes/>

CHESHIRE ENERGY COMMISSION
MEETING MINUTES
April 25, 2022 - VIRTUAL ZOOM

I. CALL TO ORDER

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

II. DETERMINATION OF QUORUM

A quorum was present.

Commission Members Present:

Mr. Richard Ogurick (Chairman)
Mr. Dan Knudsen
Mr. David Gavin
Mr. Chris Smith

Others Present: Mr. Tucker Deming

Staff Present: Mr. Daniel Bombero, Capital Projects Manager

III. PLEDGE OF ALLEGIANCE

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

IV. APPROVAL OF MINUTES

A. March 28, 2022 - Meeting Minutes

MOTION by Mr. Gavin to approve the meeting minutes from March 28, 2022 with the following corrections:

VI.,A.1 - When referring to the cogeneration unit at the pool, clarify that when the large boiler takes over and does not properly communicate with the unit, it affects the "utilization" and not the "efficiency" of the unit.

SECONDED by Mr. Knudsen

VOTE unanimous

VI. COMMUNICATIONS

No information was discussed under this agenda item.

VII. OLD BUSINESS

a. Energy Efficiency Projects

1. CHP at Cheshire Community Pool – current operating rate

Mr. Gavin reiterated that when the small boiler goes down at the pool, the large boiler takes over and does not properly communicate with the cogeneration unit. This affects the utilization of the unit. Mr. Bombero communicated that the Pool Director has been in communication with Aegis regarding this matter and she also has a pool maintainer on staff to assist with pool maintenance issues. Mr. Bombero shared that Aegis Energy has hired new staff who may be able to further assist Ms. Adams with trouble shooting the boiler issues at the pool and provide closer monitoring of the systems. Staff will provide assistance as needed.

2. Bartlem Park concession stand – energy waste

Mr. Bombero reported that there has been no communication with staff on this item.

b. Benchmarking

1. Energy Star Portfolio Manager – database input and maintenance

Mr. Smith reported that he has input all of the data supplied to him by staff.
Publicity/Education/Outreach

2. News articles and letters to the editor

3. Life Cycle Costs

The above referenced items were discussed simultaneously by the group. Chairman Ogurick reported that the draft revisions to the life cycle costs letter were complete (see attached). A group discussion ensued regarding how to provide the public with information regarding concepts that they may be unfamiliar with such as “life cycle costs” and how considering them, when building the new schools, may promote long term savings to residents. They considered which mediums would be the most effective means of getting information out to the public including the Record Journal and Citizen, the Cheshire Herald, and the Cheshire Forum.

4. Outreach advertisement

Mr. Smith shared that he is looking to see how other Towns are promoting their Energy Commissions and involvement within their communities. A group discussion ensued. Chairman Ogurick used the example of the School Modernization Initiative to emphasize the importance of timing when it comes to energy related projects and public outreach. The group talked about the possibility of a monthly post on the Cheshire Forum to promote their meetings as well as a Net Zero informative post to promote community awareness and involvement in the building of the new schools. Mr. Smith suggested looking at the explanatory text for referendum questions used by

Mansfield and Manchester when they modernized their schools. Mr. Smith forwarded the explanatory text from each of these towns to members of the commission for their review and reference.

c. Clean Energy

1. New municipal energy efficiency /cost savings opportunities
2. Opportunities for additional solar car ports or PV Arrays, charging stations

Mr. Gavin mentioned that the Waste Water Treatment Plant facility was an area of opportunity for a solar array. There was no further discussion on this item.

3. Net-Zero pilot program

This item was not discussed

d. PBC Projects

1. Quinnipiac Park Bathroom renovation project

Mr. Bombero shared that one proposal was received on March 7, 2022 and that the project had not been awarded to date.

e. Grants, Rebates & Utility Programs

1. Early Involvement of Eversource in all Town building projects

Chairman Ogurick shared his opinion that the Town should make it a point to involve Yankee Gas or Eversource in reviewing plans for future projects and they should also be involved in the next generation schools.

2. Spreadsheet of important dates – programs and grants

Mr. Smith shared that he had not received any dates from members of the commission. He has the framework for the spreadsheet in place and dates, such as the CT Greenbank deadlines, can be added once they are forwarded to his attention. There was a brief discussion about the Renewable Energy Program.

f. Energy Reliability Program

1. Update on tree trimming

Mr. Bombero shared that Eversource is still performing routine maintenance and there was no further discussion on this item.

g. Coalition for Sustainable Cheshire

1. Benchmark and Track Energy Use – information for Silver Status for Sustainable CT
2. Communication with Amy Thompson of UCONN

Both of the above referenced items were discussed simultaneously. Chairman Ogurick shared that he has emailed Professor Amy Thompson to extract information from the Portfolio Manager portal to assist Sustainable CT in achieving Silver Status. He reported that he has not received a response from his initial correspondence.

h. School Modernization – resources for high performance schools

1. Discovery Elementary School, Arlington, VA

<https://betterbuildingssolutioncenter.energy.gov/videos/building-brighter-futures-through-zero-energy-discovery-elementary-school>

Chairman Ogurick shared that he is glad that his email about Net Zero Schools has been a subject of discussion by decision makers. Mr. Gavin shared that the video of Discovery School in Arlington, Virginia (link above) demonstrates that Net Zero schools are possible and should be considered. Mr. Gavin shared that there are upfront costs involved with Net Zero Schools, but overall lifecycle costs make them desirable.

2. Letter to BOE and Town Council 4/19/22

The group discussed timelines for applying for grant money, which may become available for the construction of Net Zero schools. A brief discussion of the timeline surrounding the

VIII. NEW BUSINESS

A. New commissioner appointment

Chairman Ogurick welcomed Tucker Deming to the group. Mr. Ogurick shared that Mr. Deming has been appointed to the Energy Commission and pending Council appointment and swearing in at the Town Clerk, he will become an official member of the Energy Commission member.

Chairman Ogurick reported that he had a draft of an Energy Plan developed several years ago. The Chairman agreed to forward the draft to Mr. Smith so he can reference it as he drafts a current Energy Strategy to submit to Council, on behalf of the Energy Commission.

IX. ADJOURNMENT

A motion to adjourn was made by Mr. Knudsen, seconded by Mr. Gavin and the meeting was adjourned at 8:16PM.

ATTEST

A handwritten signature in blue ink that reads "Anne McBain". The signature is written in a cursive style with a large, looping initial "A".

Anne McBain, Acting Secretary

Lower Initial Construction Costs Could Translate into Higher Taxes

As Cheshire residents may be aware, the town has been working on a school modernization plan called "Next Generation Schools," which will require a referendum for resident approval of what is expected to be a very significant investment. The Cheshire Energy Commission, an advisory body to the Town Council, comprised of appointed volunteers, wants to ensure that planning for the new school buildings in the initial phase, and the renovation of existing school buildings in subsequent phases takes a close look at the operational energy costs that our tax dollars will be committed to pay for in the foreseeable future. The proper way to think about a long term investment such as this is to consider its Life Cycle Cost.

Life Cycle Cost is the total cost of ownership over the life of an asset. So, while one may think that our taxes will be less if we go with the cheapest design and the lowest bid, the opposite is more likely to be true. The Operations and Maintenance cost of a municipal building over its estimated useful life, generally 50 years, could easily total 3 - 4 times that of the initial construction cost. Energy consumption represents the second highest operational expense to schools, second only to salaries. Each year, a significant portion of taxpayer dollars is spent on school utility expenses such as electricity, natural gas, fuel oil, water, etc. Therefore, it is vitally important to consider these potential costs in the initial design phase, and not as an afterthought.

The Energy Commission has recommended to the BOE and the Town Council that net-zero energy construction be considered for its new school buildings. Several CT towns have built net zero energy schools recently, which use technologies that consume between 65%–80% less energy than conventionally-constructed schools, and generate the remaining energy required onsite using renewable energy sources like solar power. While these more energy-efficient technologies do increase the initial construction cost, the incremental amount can often be paid back through energy savings in a matter of just a few years, and then save the town money for 30 or more years, thereby reducing residents' property taxes.

Some energy technologies that the town should carefully consider are:

- Heating and cooling using ground source heat pumps, which are not only energy efficient, but also eliminate the use of fossil fuels and reduce our carbon footprint. We will be taking the environmentally responsible path by reducing our greenhouse gas output. Also, in the future, there will be a trend toward increased electrification of buildings, including their heating systems. We don't want to build something now that will be obsolete in 5 years
- Consider roof-mounted solar panels and solar carports in the design phase, so they can be added later, if they are not installed during the initial construction
- Maximize Indoor Air Quality (IAQ) by installing appropriate sensors and controls, plus include heat recovery on the ventilation systems
- Install LED lighting and associated controls (occupancy sensors and dimming). Lighting should be accessible by a ladder and not require special equipment for maintenance
- Take advantage of daylighting to the greatest extent possible. but not at the expense of having excessive glass surfaces that might look modern from the outside, but can cause large heat losses and difficulty cleaning
- Install maximum R-value insulation and highly rated windows
- Include a Building Automation System (BAS), which is web accessible and integrated with other BAS installations in town

- Equip exterior lighting with photocells or timers, and use step-dimming technology that keeps them from running at their full brightness at night when it is not necessary
- Install efficient water technologies such as low flow electronic valves on toilets and sinks, and tankless hot water heaters
- Install energy efficient equipment in kitchens and cafeterias (heating, cooling, and refrigeration)
- Integrate energy security and resiliency technologies into future school buildings
- Assure that a Computerized Maintenance Management System (CMMS) is implemented

It is important that these concerns, which are both important to our quality of life and cost of living in Cheshire be considered and implemented to the extent possible in the Next Generation School plan.

Cheshire Energy Commission