

THESE MINUTES ARE SUBJECT TO APPROVAL BY THE SUSTAINABLE ENERGY COMMISSION

The Sustainable Energy Commission held a regular meeting Thursday, April 19, 2018 in shared meeting room 3 of the Municipal Center located at 3 Primrose Street, Newtown, CT 06470.

The meeting was called to order by Chairman, Kathy Quinn at 7:05 p.m.

Present: Chairman Kathy Quinn, Allen Adriani, George Brown, Mark Sievel, Dave Stout,

Also Present: Monica Duhancik

Absent: Jeff Jorgensen, Graham Clifford, Tom Snayd

Communications: Vanessa Villamil has been appointed to the commission. The town will be eligible for a gold LEED certification for Sandy Hook School. There was an article in the Newtown Bee (att.) relative to the SBEA program on Middle Gate and Middle School and the savings that are realized.

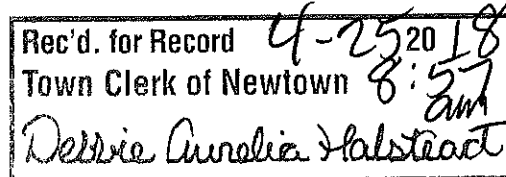
Public Comments: none.

Acceptance of Minutes: Mr. Adriani moved to accept the minutes of the regular meeting of March 15, 2018 noting that Graham Clifford was absent, but not noted in the minutes as being either present or absent. Mr. Stout seconded. All in favor.

Business

Discussion and possible action:

- a. **Status of Landfill Solar Project:** Eversource turned on the system on April 16 and connected to the grid. Tesla had a glitch with the monitoring meter that the town will be connected to for import to the Town dashboard. This will be corrected this week
- b. **New Project – Sandy Hook School Solar/Firehouses:** The vendor is still waiting on the Greenbank to finish the paperwork for the PPA.
- c. **Solomon Solar project/Windham:** no update.
- d. **MLS Group – Nunnawauk Meadows – solar:** no update.
- e. **Batchelder site – potential for solar:** there is potential for community solar at this site. Mr. Stout said it's important to make sure all contracts are managed.
- f. **ZREC for Community Center:** Mr. Hurley is waiting on the actual roof layout form the designers to enable submittal for a ZREC. Mr. Stout suggested finding out the roof line soon to determine if there is need to apply for a medium ZREC.
- g. **Energy Savings program update:**
 - Riverside Road Senior Center** – Energy Solutions will take a look at this building.
 - Library** – JK will look at this building.
 - Edmond Town Hall** – JK will also look at this building.
 - Energy Solutions did the Municipal Center; JK did the Department of Public Works.
 - New Construction projects:** see item (f).
 - Community Center:** no update.



Police Dept.: no update.

General plan for schools: no update.

- h. Microgrid feasibility study:** no update.
- i. Dashboard for website (API keys):** no update.
- j. Sustainable CT resolution:** The resolution was passed by the Legislative Council on 3/28/18. Ms. Quinn asked the commission members to review the checklist of the nine categories for submission by May 1st. Ms. Quinn will call a special meeting to go over the checklist and build a portfolio on that. Mr. Stout asked about the criteria. Sustainable Energy will oversee Sustainable CT to get it off the ground.
- k. Discuss potential Centrica Presentation:** this will be combined with the fuel cell discussion that will continue when Mr. Hurley attends the May meeting.

Additional Items for discussion:

- 1. Municipal Energy Plan:** no update.
- 2. Energy Star Portfolio Manager:** Mr. Adriani will ask Gino Faiella if there is a way to create savings during peak demand at the schools over the summer. The portfolio can be a good tool in measuring energy consumption. Gas and electric automatically update.
- 3. Web Site – Update Landfill photo, link to Sustainable CT:** Ms. Quinn will look for a graphic to link Sustainable CT to the Sustainable Energy website. Ms. Quinn does not have a current picture of the Landfill project.
- 4. Organic Recycling:** no update.
- 5. Fracking Waste:** sent to Ordinance Committee 2/7/18 for review.
- 6. Plastic Bag Reduction resolution:** the Legislative Council voted on 4/18/18 to send this to the ordinance committee for review.

Items on Mr. Hurley's report: **Electric Vehicle** – the car is at the body shop for wrapping; it will be finished in time for Earth Day. **2018 Virtual Net Metering Legislation** - Prospects for further Virtual Net Metering are contained in SB7. There is hope it can be modified in a productive way. We will see support for this bill; our State Senator and Representatives are working on this. **High School Fuel Cell:** Mr. Hurley is looking into a fuel cell since there is uncertainty about the originally planned 2 megawatt system from an off site location and virtual net metering. Mr. Stout questioned why we are looking at just one energy conservation measure and said companies should come in to find out what would make the most sense, the thermal need, the heating/cooling, fuel cells plus battery storage; what the best solution is. Typically you have to apply for a REC (ZREC/LREC) for a specific meter (att.). This will be discussed further at the May meeting. Fuel cell is built to electrical need. Solutions are individual to buildings.

Adjournment: Having no other business Mr. Brown moved adjourn the regular meeting of the Sustainable Energy Commission at 8:07 p.m. Mr. Sievel seconded. All in favor.

The next regular meeting will be held on May 17, 2018.

Att: Newtown Bee article; page from Eversource website re: REC's

Susan Marcinek, clerk

Newtown Schools Embrace Energy Efficiency Projects To Generate Positive Taxpayer Savings

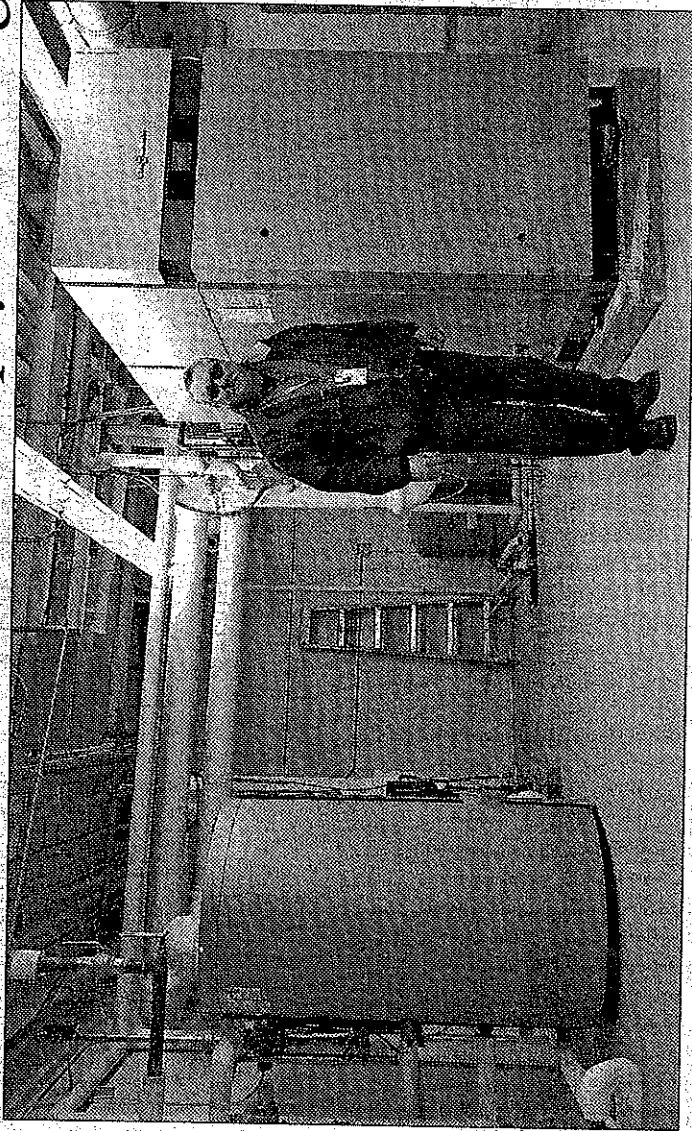
By JOHN VOKET

While solar panels that cover the roof lines at a number of Newtown schools provide a more visible reminder that the town has embraced alternate energy generation to achieve measurable savings, the fixtures and bulbs that light a number of local schools, along with heating equipment that regulates and warms those buildings during the coldest months of the year, are also big money savers for local taxpayers.

Recent interviews with district Director of Facilities Gino Faiella and Public Works Director Fred Hurley illustrate the escalating number of efficiencies being employed along with both potential and actual dollars saved. Those recent installations and upgrades have also produced equipment rebates and provided zero-interest loans to acquire the equipment, relieving taxpayers of the upfront expense of these improvements.

According to Mr Faiella, new high efficiency installations at Middle Gate Elementary School and Newtown Middle School were budgeted to cost \$1.8 million, but as a result of partnering with the gas and electricity utility Eversource, Newtown has already received rebates of \$211,475.

The new equipment at just these two schools, which includes LED lighting upgrades, new high efficiency gas-fired boilers, high efficiency pumps with variable frequency drives (VFDs), and upgraded building management systems, are anticipated to recoup in excess of \$200,000 in



Director of Facilities Gino Faiella stands between a new high efficiency gas water heater and high efficiency gas boiler in the basement of Newtown Middle School. The new equipment was purchased and installed using a zero-interest loan program through the utility company Eversource. A similar configuration was installed more than a year ago at Middle Gate School.

—Bee Photo, Voket

savings annually.

Cost Comparison

School Business Manager Ron Bienkowski provided a before and after comparison of energy costs for Middle Gate School, which now has more than a full year experience with the new equipment.

In 2016, the years prior to the LED lighting upgrade, electrical consumption at Middle Gate cost the district \$53,883, while electrical costs for the full year with the LED system was \$36,703.

The cost for heating oil — the final year before the gas boiler changeover — was \$85,423, while the first full year on the high efficiency gas system was \$25,893.

The district anticipates the cost for the current year's gas consumption to be approximately \$28,482, while Mr Bienkowski expects the electrical cost to drop this year to \$34,406.

In addition, once the energy upgrades were completed and verified by the utility, Newtown received an added \$70,699 to

apply to the capital costs of the project, Mr Bienkowski said.

Mr Hurley said that savings registering on the meter now are the result of work done among district representatives, his department, and the Newtown Sustainable Energy Commission that began nearly a decade ago. At that time, funds derived from a small percentage of each ratepayer's utility bills were made available to both residents and commercial entities interested in improving energy efficiency. The rebates and incentives

eventually received by Newtown were part of the commercial segment of this effort — a program called Small Business Advantage.

"Under this program, we were able to apply as if these individual schools were commercial businesses," Mr Hurley said. "We had audits done on each building by the utility, which identified energy-saving measures that could be applied — many of which were already identified for rebates. So taking advantage of these savings really represented low-hanging fruit that we just went out and picked, based on the projects we were able to do."

Once installations are verified by Eversource, rebate and incentive payments are distributed.

Mr Hurley said the first school to tap the program was the new Sandy Hook Elementary School, which maximized the installation of energy-saving equipment during its construction process.

"When we saw the substantial rebate that came from those installations, it became an ongoing process to participate as we were able to tackle these projects, as upgrades at various other schools," he said.

So why is Eversource so willing to give money back?

Mr Hurley said the more residential and commercial buildings that install and employ some or all of the measures identified in energy audits, electrical generation and its related costs are reduced.

"By cutting demand, it helps mitigate congestion charges we

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3-30-18

Bee

A-EIGHT

Schools Embrace Energy Efficiency Projects To Generate Positive Taxpayer Savings

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are all forced to pay for bringing a lot more energy into the system than we are generating ourselves," he explained. "Everybody benefits from a reduction in energy consumption, so there is a benefit to all ratepayers, even if they are not utilizing any efficiency measures."

Benefits Adding Up

Instead of including upgrade and installation costs in the district operating budget or in long-term bonding, Mr Hurley said Newtown took advantage of relatively short-term zero-interest loans to complete the projects. The loan paybacks can then be budgeted and metered out over a four-year schedule, "and you pay those loans off [in part or full] from the savings generated on your utility bills."

Mr Hurley said the more challenging task of determining how much of the loan balance will be offset by energy savings is being calculated now.

"It's a little bit challenging because of the regular fluctuations in energy costs," he said. "We have to prorate the savings year-to-year. It's not as simple as

we used to pay \$2 and now we pay \$1."

While not part of the immediate discussion, Mr Hurley said another taxpayer benefit comes because the town was able to negotiate a series of fixed, 25-year electric rates, which he said provide a hedge against upward fluctuations and volatility in those rates.

While taxpayers are reaping the long-term benefits of existing energy-efficiency measures, and will add benefits as more planned installations are completed at schools, Mr Hurley also pointed out another initiative that has realized even more savings.

In order for Sandy Hook and Middle Gate Schools to be able to install their high efficiency gas equipment, they needed access to gas pipelines to supply the fuel to burn. If left to the utility to provide or contract for these gas line projects, it would have cost Newtown as much as \$675,000.

But Mr Hurley said Public Works crews stepped in instead of using outside contractors, so any additional cash outlay for that trenching and pipeline-related work was eliminated.

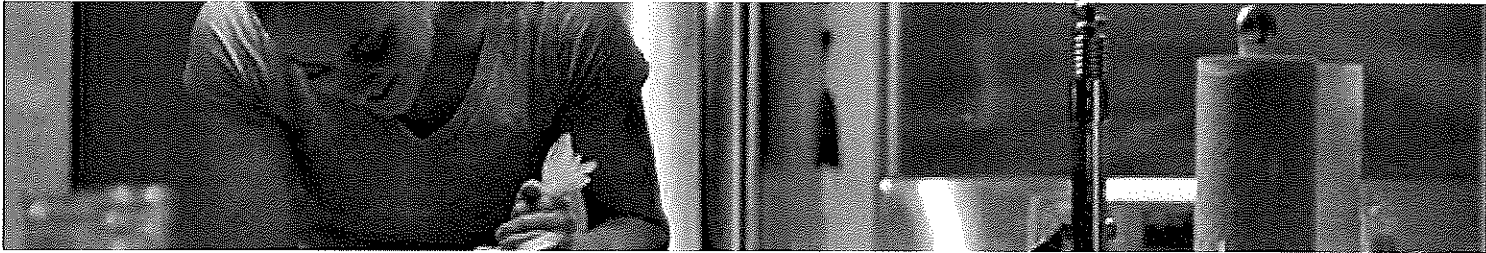
"For Middle Gate, Public Works ran all the trenching and pipe-

line from way behind the adjacent shopping center," Mr Faiella said. "That was a little over 3,200 feet of trenching and piping. They also did all the backfilling and seeding. That was free of charge — no cost to taxpayers beyond the daily cost of the local employees and equipment used. His department did a great job, and this is just one example of how we share services to save taxpayers money."

Part of the heating system at Hawley School has already been replaced with high efficiency gas-fired boilers, Mr Faiella said, and plans to upgrade the rest of the building's heating plant are in process. That work will also consolidate the space needed for heating equipment and will open up a basement room currently housing heating equipment for the oldest front section of the building for other uses.

Mr Faiella said the 1969 boiler at Newtown High School is next on the list for replacement, and then it will be time to look at efficiencies that can be applied at Reed Intermediate School.

"I want to eventually get all the school facilities equipped with the highest efficiency heating and lighting systems," he said.



RENEWABLE ENERGY CREDITS

An Opportunity to Develop Renewable Generation in Connecticut Through the Low Emission Renewable Energy Credit (LREC) and Zero Emission Renewable Energy Credit (ZREC) Program.

Electric customers of Eversource in Connecticut who install new, qualifying renewable energy projects -- ranging from rooftop solar panels to fuel cells -- now have an opportunity to sell the qualified Connecticut Class I renewable energy credits (RECs) created from their projects to Eversource under a long-term, 15-year contract.

The Eversource LREC/ZREC team can be contacted via email at lrec.zrec@eversource.com (<mailto:lrec.zrec@eversource.com>) or U.S. Mail at:

Renewable Power Contracts
107 Selden Street
Berlin CT 06037

PROJECT SIZE AND APPLICABLE CATEGORY

Project Size	Category
≤ 100 kW (AC)	Small ZREC
> 100 kW (AC) and < 250 kW (AC)	Medium ZREC
≥ 250 kW (AC) and ≤ 1,000 kW (AC)	Large ZREC
Up to 2,000 kW (AC)	LREC