

SUSTAINABLE ENERGY COMMISSION

Regular Meeting – via teleconference

Thursday, September 17, 2020

Called to order at 7:00pm

THESE MINUTES ARE SUBJECT TO APPROVAL BY THE SUSTAINABLE ENERGY COMMISSION

Present via teleconference: Kathy Quinn, Allen Adriani, Zach Marchetti, Erik Weiss, Mark Sievel, Dave Stout, George Brown (7:25)

Also Present via teleconference: Director of Public Works Fred Hurley, BOE Director of Facilities Robert Gerbert, John Bonavist from Honeywell

Communications – None

Public Comments – None

Acceptance of Minutes – A. Adriani moved to approve the minutes from the 8/20/20 meeting. E. Weiss seconded, all in favor.

BUSINESS

Discuss and vote on new commission member, Carol Walsh - M. Sievel moved to appoint Carol Walsh as a member of the Sustainable Energy Commission. Adriani seconded, all in favor.

Home Energy Solutions, updated program through 2020 – K. Quinn explained that the Home Energy Solutions is offering free home energy audits until the end of 2020 (Attachment A).

Presentation to BOE 9/15/20 – K. Quinn reported that A. Adriani, F. Hurley and K. Quinn presented to the BOE (Attachment B). The Board of Education didn't understand what the board does and was very impressed. They will collaborate with the SEC during the CIP process. The Board of Finance has requested a presentation as well.

ZREC for Community Center, new Police Station and Hook & Ladder Fire House – F. Hurley reported that they finally got the warranties for the Community Center and that has been forwarded to the vendor. The PD is almost ready to start construction of the roof. Both projects will probably go on at the same time. Hook and Ladder is already completed.

VNM Solar project – New project waiting state approval – F. Hurley got the transfer of the credit accounts from the High School which go back to December 31. There is about \$56,000 net credit to go to the school. There have been some problems dealing with Eversource and are considering doing a filing with PURA. Our vendor is going to prorate bills until the credits catch up.

Electric Vehicles-Charging Stations – No Update

Update on Community Center/Senior Center co-generation meeting update – No Update

New Police Station – Everything is moving along and slightly ahead of schedule.

Develop/update: Municipal Energy Plan, Web Site, Facebook page and Power Point Presentation. Incorporate demand reduction and Energy Star Portfolio Manager – The website is being updated. The energy plan is being worked on and the portfolio manager cleaned up. D. Stout has been talking with Direct Energy who has a program that helps you save on energy costs. They will take 25% of your savings. They only make money if they are saving us money.

Presentation by John Bonavist from Honeywell – J. Bonavist from Honeywell presented services his company can provide. They work with Towns and BOEs, working collaboratively to get to RFQ or RFP. It is not product specific, it is project specific. However, Newtown has done an investment grade audit in the past and a lot of the work has been completed.

ADDITIONAL ITEMS TO BE ADDRESSED

Organic Recycling/ School program – No update

HRRA grant for composting program – No Update

General Recycling – No Update

Next meeting is October 15, 2020.

Having no further business, the meeting was adjourned at 8:01pm.

Respectfully Submitted,
Arlene Miles, Clerk

Attachment A

HOME ENERGY SOLUTIONS

The Home Energy Solutions (HES) program that is funded by a small fee on our electric bills is offering FREE home energy audits until the end of 2020. There are new, more generous rebates for efficiency improvements, with no-cost efficiency work for those who are income eligible. There are larger incentive payments for windows, air or ground source heat pumps, or insulations and the audit includes several free conservation measures during the visit. The program is free if you have not had an audit in the past 36 months. This revised program is designed to make up for the time lost this year because of the pandemic, and includes new safety procedures to cope with COVID19. One of them is a virtual pre-audit by phone. You can apply for a free home audit by phone at 1-877-WISE-USE (9473-873) or online at www.energizect.com

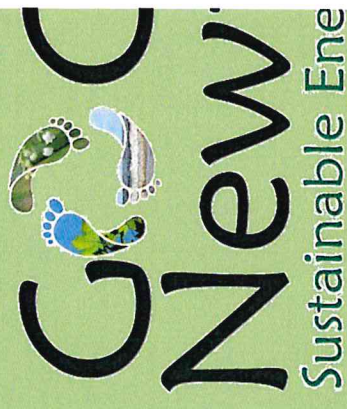
Attachment B



Town of
Newtown
Connecticut

Sustainable Energy Commiss

September 15, 2020



Who we are and what we do

- 9 member group of individuals with diverse backgrounds
- Support the efforts of Town officials and employees to identify and implement renewable energy use, energy efficiency and energy conservation programs
- To identify, implement and support **renewable energy** use, **energy** efficiency and **energy** conservation programs in which **Newtown's** residents, businesses, organizations, and town agencies can participate.



- HVAC Equipment – 66%
Includes: heating, cooling and ventilation

- Hot Water Heating – 7%



How can

- Building Envelope (Insulation, Fenestration, Vapor Barrier and sealing)
- Lighting -14% Lighting controls including timers and occupancy sensors.

• Heating Ventilation Air-Conditioning (HVAC)

- Dampers, actuators and controls
- Variable Speed Drives (VSD)
- Building Management Systems(BMS) / BMS Optimization(using correct schedule
- Boiler Upgrades
- Chiller Upgrades
- Solar PV system
- Demand response management (We can save money here)

• Benefits:

- Reduces maintenance costs
- Reduces CO2 emissions
- Lower utility bills



What Energy

• MIDDLE GATE Les have we done?

- Natural Gas line put in place
- Aerco boilers installed
- LED lighting updates

• MIDDLE SCHOOL

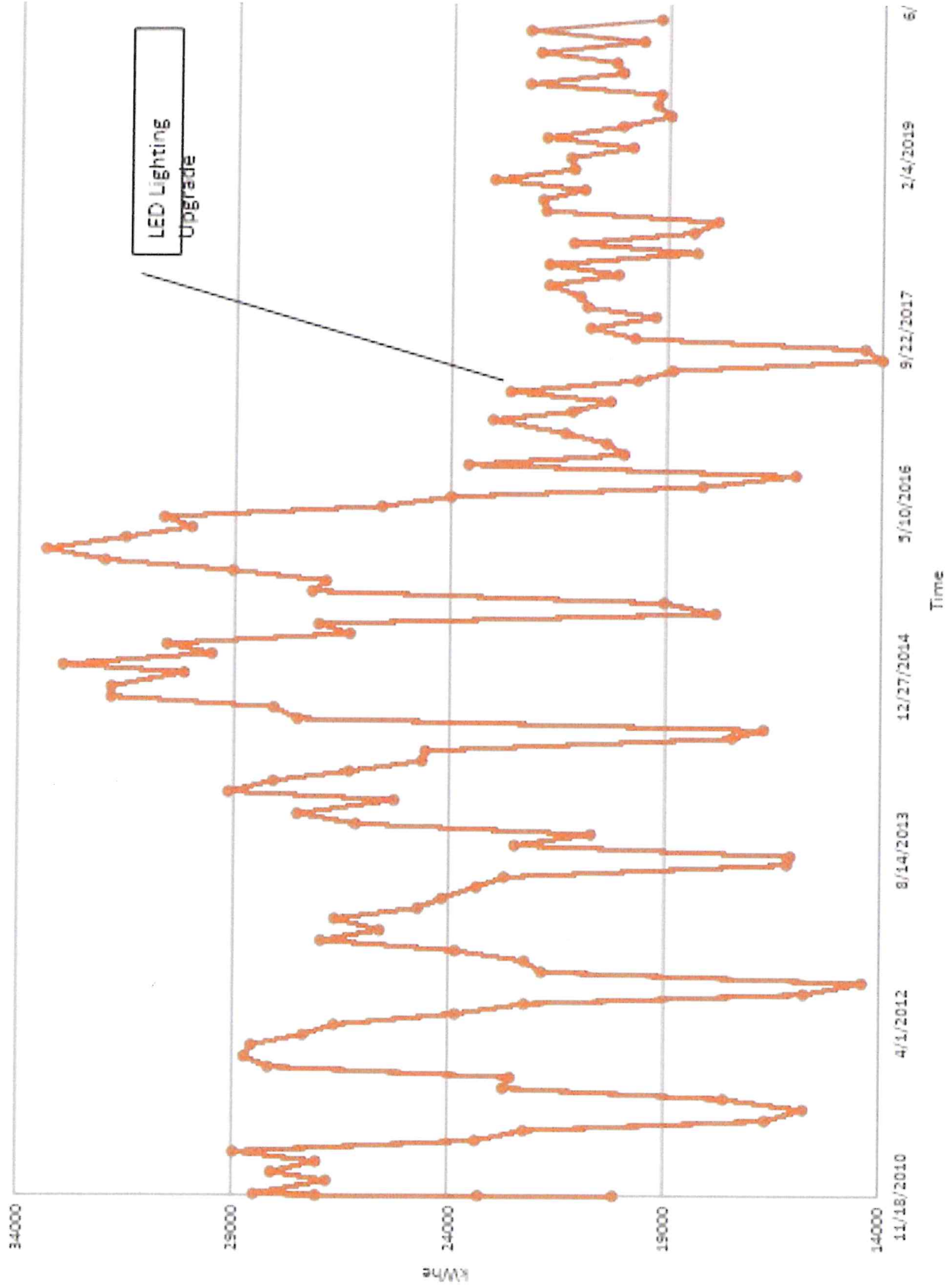
- Natural Gas line put in place
- Viessman condensing boilers installed
- LED retrofit throughout entire building

• HAWLEY

- LED retrofit throughout interior of building
- Replaced parking lot lights and wall packs
- Steam boilers replaced with Aerco boilers and converted to hot water



Middle Gate School



What Energy

• HIGH SCHOOL

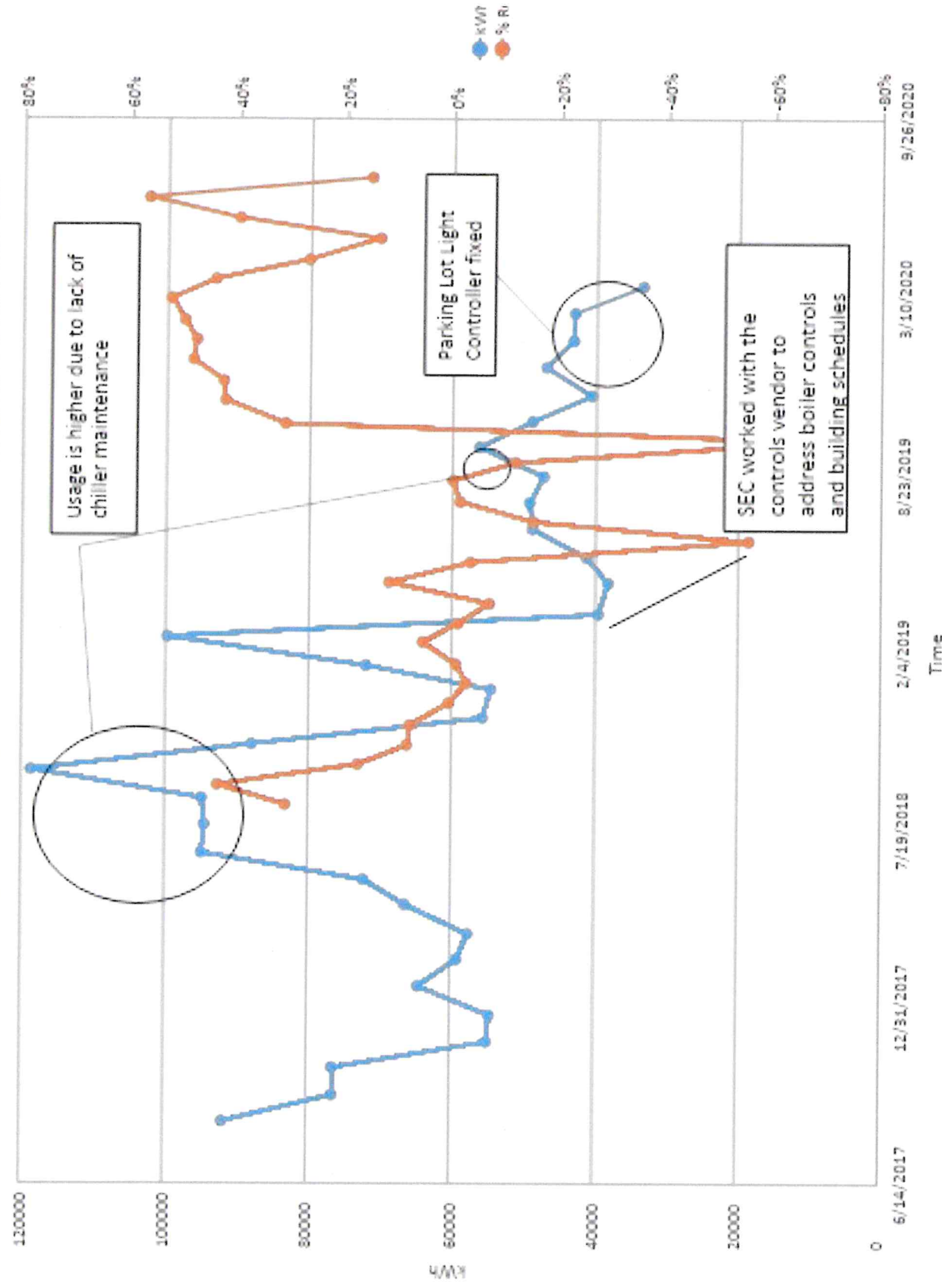
Upgrades have we done?

- New Aerco Benchmark boilers in main building and F-wing.
- New indirect-tanks for water heating were also installed.
- All hydronic heating pumps replaced.
- LED retrofit throughout entire interior of the building.

• SANDY HOOK SCHOOL

- 1/19 - Members of the Sustainable Energy Comm. started reviewing energy usage and the school and identified areas that need to be addressed
- Items addressed were, Building Management Systems optimization (update correct schedules) boiler temperature control, kitchen hood fan control, parking lot lights.
- Saving up to \$125K/yr in operating expenses.
- Thanks to Bob Gerbert, he was able to address the parking lot lights and kitchen hood VFD.

Sandy Hook School - kWh and Electric Use Percent Reduction Over Prior Year



Solar PV Systems

Solar Installation Site	System Size (KW/AC)	Estimated Output/YR (KWH)	Launch Date
Waste Water Treatment Plant	79	134,000	9/1/2012
Newtown Middle School	150	205,000	5/1/2013
Parks and Rec. Garage	85	117,700	10/3/2014
Animal Shelter	12	17,300	10/3/2014
Reed School	528	712,000	7/1/2017
Newtown Landfill (VNM)	1,000	1,853,000	4/26/2018
Sandy Hook School	200	282,200	12/29/2017
Sandy Hook Fire House	60	89,700	12/29/2017
Sandy Hook Sub Station	12	14,900	12/29/2017
Dodgingtown Fire House	8	10,600	12/29/2017
VNM - Jackson-Sherman, Griswold CT	2,000	3,215,700	12/30/2019
VNM — Sydney, Hampton CT	2,000	3,200,000	7/3/2020
police station 191 S. Main	100	150,000	9/1/2020
Community Center	100	150,000	10/1/2020
Newtown Hook and Ladder	60	89,000	8/1/2020
(Pending VNM — Pike, Hampton CT	1,000	1,600,000	7/1/2021
Totals	7,394	11,841,100	



Solar PV Systems

- 1 MW-VNM Landfill supports: (Credit cap \$286,374 / PPA price \$.086/Kwh)--To Municipal Center, 3 Main Street police Station, Wastewater Treatment plant, and Treatment Plant
- 2 MW -VNM (Jackson -- Sherman) Voluntown Rd, Griswold CT supports: (Credit /PPA Price \$.089) -- Newtown High School
- 2 MW -VNM (Sydney) 25 Fisk Road, Hampton CT supports: (Credit cap \$495,872 \$.089/Kwh) --Middle School, Sandy Hook, Reed, Head O'Meadow, and Hawley
- 1-MW -VNM pending (Pike) O Fisk Road, Hampton CT supports: (Credit cap \$24 Price \$.089)-- Community Center, Cyrenius Booth Library, Ambulance Garage, 1 School, and Edmond Town Hall

High School Observations



- Roof Top Units:

- Approximately 15 Roof Top Units that were installed in 1997. They R22 refrigerant, which will not be available to purchase in the near
- Based on ASHRAE 90.1 2023 requirements, newer units can save up energy.
- It's our recommendation to add these to the CIP for replacement.

- Pool Room

- It does not appear to have energy recovery. Based on the age, a new energy recovery could offer energy saving up to and beyond 50%. It required some design work that will benefit not only on energy, but comfort.
- It's our recommendation to this work and unit replacement to the C



As of January 2023, the school has produced or in existing stockp

Middle School

• 5 Existing Roof Top Units were installed in 1987

- One was replaced this year. It's our recommendation to add these to the CIP for replacement. Roughly, \$100K
- Insulation in the original 1954 attic is limited and additional insulation can reduce heat loss and heat gain.
 - This work might be able to be covered under the maintenance budget.
- No boiler redundancy
 - There are only two boilers in the school with no backups. While we are looking to replace Reed and HOM boilers, consideration should be given to adding redundancy to the Middle School. It's our recommendation to add these to the CIP. Note: Future HVAC will increase the outside air requirements and require larger boilers.

Future Work

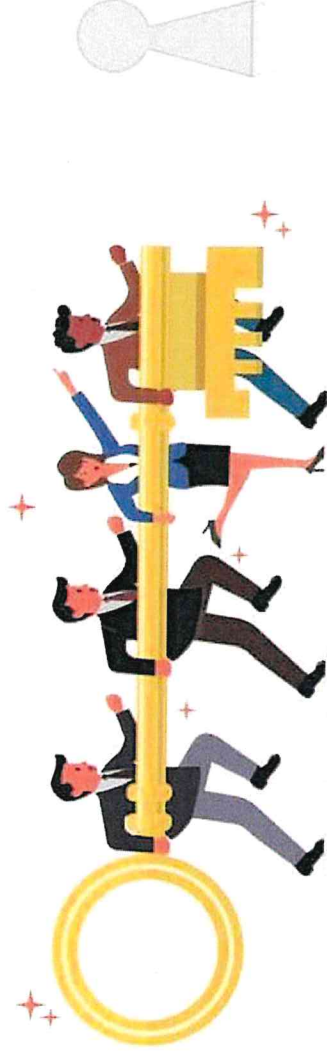
- Walk Through to Identify Potential Energy Saving Projects:
- Reed
- Middle Gate
- Head O'Meadow
- Hawley
- Sandy Hook

SAVING
ENERGY



Teamwork is the key to Newtown's future

Let's work together





Town of
Newtown
Connecticut

Thank You

