

3 PRIMROSE STREET
NEWTOWN, CT 06470
TEL. (203) 270-4221

BOARD OF FINANCE
MINUTES
REGULAR MEETING
Council Chambers
3 Primrose Street
Newtown, CT 06470
Tuesday, February 18, 2020 at 7:30 p.m.

These minutes are subject to approval by the Board of Finance

Present: Sandy Roussas, Keith Alexander, Ned Simpson, Chris Gardner, John Madzula and Matthew Mihalcik

Absent: None

Also Present: Finance Director, Bob Tait, Police Captain Vanghele, Chair of Police Commission, Joel Faxon, Police Chief Viadero, Public Works Director, Fred Hurley, and one member of the public

Chair Sandy Roussas called the meeting to order at 7:30 p.m. Attendees saluted the American Flag.

Voter Comments

None

Communications

Chair Roussas shared with the Board the document 2020-21 BOF Budget Questions (see attachments)

Minutes

Keith Alexander moved to approve the minutes of the Public Hearing on February 13, 2020. Matt Mihalcik seconded. All in favor and motion passes.

Keith Alexander moved to approve the minutes of February 13, 2020. Ned Simpson seconded. All in favor and motion passes.

First Selectman's Report

None

Finance Director's Report

None

Unfinished Business

Debt Policy

Tabled

BOS FY 2020-21 Budget

Police Department

The overall budget for the Newtown Police Department for the 2020-21 FY Budget has increased by 2.80% or \$195,980 (see attached).

Mr. Mihalcik asked if the current employed 45 officers include the Chief and Captain. Chief Viadero said yes.

Mr. Gardner asked about when the cruisers come offline if they are sold. Chief Viadero said they are traded in and receive roughly \$1,000/trade in for the Crown Victorias. Hoping to receive around \$2,500-\$3,000 for the newer vehicles. The Department is reaching out to area Universities to see if they will get a better price.

Chair Roussas noted there will be an overlap of utilities with the new police department. She inquired if anyone knew how much of an increase this will be. Chief Viadero responded by saying that there will be overlap and Director of Public Works, Fred Hurley, will help navigate that increase.

Chair Roussas asked if the new facility will house more employees. Chief Viadero said they are not hiring, but he does want to increase officers given they are low in numbers at some point in future years (per his presentation). The facility can handle roughly 58 personnel, so the space is there if the need arises.

Mr. Alexander noticed on page 129 Uniform Allowance and the reduction in vest costs. Chief Viadero said he will not sacrifice officers' safety and the monies will likely come from the First Selectmen Revenue Account.

Mr. Mihalcik asked had the Town been able to employ more officers what would they be used for. Chief Viadero responded by saying he would utilize the additional resources for the Traffic Division. To follow up on Mr. Mihalcik's question, Mr. Simpson asked if in doing so could congestion be eliminated. Chief Viadero said Newtown is used as a bypass between Bridgeport and Lower Fairfield County. The Police Department can't do much in the way of congestion; however, he said the additional help would focus on speeding, congestion concerns and distracted driving.

Mr. Gardner asked if the Town receives any revenue from speeding tickets. Chief Viadero said we do not. Alternatively, the Town receives grant monies, but not any direct funding.

Chair Roussas inquired whether Chief Viadero had any requests for enhancements that he didn't make because of budgetary concerns. Chief Viadero said no he did not and he understands the budget. He also commented that he greatly appreciates the taxpayers allowing the new facility for the Police Department.

Mr. Mihalcik asked about the cost of adding a new officer. Chief Viadero said an entry-level officer would cost about \$58,000 without benefits. Finance Director, Bob Tait, said it would be an additional \$25,000 with family benefits. Adding additional equipment would bring the cost to about \$110,000 to \$120,000 per year. He also noted that it takes about a year from recruiting an officer to being fully trained and working independently.

Public Works

Highway Division

Mr. Fred Hurley, Director of Public Works, distributed information packages to the Board (see attachments).

Chair Roussas asked Mr. Fred Hurley what his budgetary challenges were. Mr. Hurley responded by saying the roads are an ongoing challenge and hoping when the FEMA money comes they will finish the rest of their road projects. He noted the \$3MM budget for roads seems to be okay. Mr. Hurley mentioned his staffing levels are okay as well. He mentioned utilizing equipment in Non Recurring Capital has worked well. Mr. Hurley made clear that the Department is using only what they need when they need it.

Mr. Hurley noted his biggest change internally is for his Crew Leaders to now function as "District Supervisors" for more continuity. This is not a budgetary change rather he is hoping to get the workers to feel their ownership into their parts of town that they are assigned through more training.

Mr. Mihalcik inquired about what incentivizes the Crew Leaders/District Supervisors to have the least amount of work orders. Mr. Hurley commented by saying the workers need to feel responsible for their part of town.

Mr. Simpson noted on page 169 that the Department covered 25 miles of road last year and this year. It will take nearly 11 years to cover 275 miles of roads in Newtown, which is quite a long period of time. Mr. Hurley said this is our challenge; however, there are other aspects of the budget to help. Mr. Hurley said the need to extend the life of asphalt is not only through chip sealing. There are newer products that will help to increase the lifespan of roads closer to 20 years that are more environmentally sound. The

oil in the asphalt has changed over the last several years; therefore, roads simply do not last as long. This problem is not unique to Newtown. Previously, the Town was doing 10-12 miles per year, so this has increased over time. Mr. Hurley mentioned that using sealant products will help.

Chair Roussas asked about the estimate of roads that still need repair. Mr. Hurley said more than 60%-70% of roads in Newtown are serviceable and structurally sound (appearance may not be attractive but quality is okay). He said 20-25% of roads are in need of help. Mr. Hurley also mentioned there is extremely old metal piping that needs to be addressed and unfortunately these can be found all over town.

Mr. Simpson noticed the Line Painting budget line item has increased from \$25,000 to \$75,000. He thanks the town because this is a critical matter in particular for senior drivers at night. Mr. Hurley said they are painting more lines as well as using better paint (that is the combination of increase in this line item).

Winter Maintenance

Mr. Gardner asked if the Department has been able to achieve any efficiencies from the mild winter. Mr. Hurley responded by saying maintenance projects are always being done.

Mr. Alexander asked about the large amounts of salt and sand that we have accrued for this year-- can we stock pile this? Mr. Hurley said we can save a certain amount, but have already used a fair amount of materials given the amount of ice we have had thus far.

Chair Roussas asked if we are seeing savings due to the mild winter and lack of overtime for employees. Mr. Hurley said yes (see attached).

Transfer Station

Mr. Hurley noted there are no personnel changes and basic costs are the same. Within the contractual services budget, there were shifts of costs in terms of recyclables (significant increase) and wood grinding from the Macrobust (FEMA covered some but not all and was a significant cost to the Town). There will be a change in the future regarding solid waste in how glass will be handled. This will not be a dollar change per se, but rather a program change (the new process hasn't been solidified yet).

Mr. Gardner asked if the amount we are recycling has gone down. Mr. Hurley stated the dollar fee for garbage is relatively flat and the quantity has decreased. The recycling fee has increased significantly.

Public Building Maintenance

Mr. Hurley said they are working with Sustainable Energy Committee to build towards a more sustainable/alternative energy town. One will see that the utilities are high right now for the Community Center, but this is a similar case with the new SHES. Initially, costs were high because it takes time to work out the kinks even though it's a new building.

Mr. Simpson asked when Public Works will assume the utilities for police station. Mr. Hurley responded by saying when the Police Department is out of the Main Street facility. The hope is for it to be by the end of this year. Mr. Hurley mentioned the Senior Center is covered by Public Works. Mr. Simpson commented that the Senior Center has no Building Management System; therefore, one needs to do regulate the temperature manually. Mr. Hurley said they are looking at remedying this in the future and won't need to call on the BOF for help in terms of cost.

Mr. Gardner inquired about the GE Grant for maintenance. Mr. Hurley said the Town receives \$1MM/year for 5 years; however, it is going into Fund Balance and hoping it will last many years beyond that.

Newtown Board of Education FY 2020-2021 Budget
Tabled until February 20th, 2020

New Business

None

Voter Comments

None

Announcements

On Thursday, February 20th Edmond Town Hall will come to the BOF meeting as well as Michelle Ku and Dr. Rodrigue from the BOE, Doug Lord, Director of the Library, Natalie Jackson, Director of Human Services (Senior Center) to further discuss the budget. On Monday, February 24th, the Community Center and Parks and Rec will come to discuss their budgets. Chair Roussas said the BOF should be ready for a vote on Thursday February 27, 2020.

Adjournment

Keith Alexander made a motion to adjourn. Chris Gardner seconded. All members were in favor and the meeting was adjourned at 8:49pm.

Respectfully submitted,
Kiley Gottschalk

Attachments

Preliminary Questions for the BOE

2020-21 BOF Budget Questions

Police Presentation

Public Works Department Information Package

Some preliminary questions for the BOE:

Local Tuition: How many students are paying to be educated in Newtown?

Energy costs projected to decrease 8 percent. What is leading to that calculation? How confident are we in that estimate?

Transportation: When does the contract expire? Any way to reduce the number of buses we use (route consolidation for example)?

MS Baseball/Softball/Basketball scheduling for \$3K. Is the AD capable of performing this function?

Early retirement incentive for teachers: When was the last time we offered this program? Any merit to offering it again?

Athletics Site Director for \$6,235. Job description for this position? Who is performing these duties now?

Any recent discussions with the town about increasing solar panel use?

2020-21 BOF BUDGET QUESTIONS

I wondered what it would take to have a zero tax increase year. So I reproduced Mill Rate Calculation 2020 / 2021 on budget page 53 and played with different numbers. Bottom line (if my spreadsheets are correct) if the combined BOS and BOE budget was cut \$780,000 the mill rate increase would be zero.

It is actually \$760,000. Please see attached "what if" sheet.

General questions related to the budget:

LoCIP funding is down \$34,404, 14%. While our road and bridge spending is up (and we have a 5 yr. CIP) why did this drop? Pg. 64

On February 5, 2020 the Governor proposed his state budget adjustments for FY 21. The Newtown LOCIP funding is from the Governor's proposed budget.

What are the fund balances (pick a convenient date)

General Fund.....unassigned = \$15,652,861 (this includes \$1,708,294 in FEMA receivables) at 6/30/2019

Capital Non-Recurring.....committed = \$288,927 (2/18/2020)

BOE Non-Lapsing Account.....committed = \$520,939 (2/18/2020)

Police Asset Forfeiture Account.....committed = \$309,530 (2/18/2020).....this fund is budgeted to contribute \$300,000 to the budget (offsetting taxes).

Bonded Projects, not spent (Was it \$25m from pg. 86 in the 2019 CAFR?).....this number is continuously changing. The \$25,907,649 amount referenced in the 2019 CAFR mostly represents projects that are a certain percent complete. Almost half of the \$25,907,649 represents the amount left to complete the new policy facility.

Charges for Services pg. 55

Are any fees being increased for 2020-2021? All, pg. 40 and pgs. 20 – 22

There are no fee increases in this budget. Transfer station fees were increased in the prior year.

How often have fees been increased?

Periodically.

Are there any costs related to the Children's Adventure Center (\$207,005) that are not contractual?

Are there any costs related to the Newtown Youth & Family Services (\$301,660) that are not contractual?

Both these questions are easier discussed in a meeting.

TOWN OF NEWTOWN
WHAT IF? CHANGES TO BOS BOE PROPOSED BUDGET
2020 - 2021

ADDITION (REDUCTION) TO PROPOSED BUDGET	CURRENT TAXES (99.2% of Levy)	TAX LEVY (Billed Amount)	MILL RATE	TAX INCREASE	CHANGE IN TAX BILL** (ANNUAL)
1,500,000	111,490,009	114,048,122	35.48	2.04%	\$ 184
1,400,000	111,390,009	113,947,316	35.45	1.95%	\$ 175
1,300,000	111,290,009	113,846,509	35.42	1.86%	\$ 167
1,200,000	111,190,009	113,745,703	35.39	1.77%	\$ 159
1,100,000	111,090,009	113,644,896	35.35	1.68%	\$ 151
1,000,000	110,990,009	113,544,090	35.32	1.59%	\$ 143
900,000	110,890,009	113,443,283	35.29	1.50%	\$ 135
800,000	110,790,009	113,342,477	35.26	1.41%	\$ 127
700,000	110,690,009	113,241,670	35.23	1.32%	\$ 119
600,000	110,590,009	113,140,864	35.20	1.23%	\$ 111
500,000	110,490,009	113,040,057	35.17	1.14%	\$ 102
400,000	110,390,009	112,939,251	35.13	1.05%	\$ 94
300,000	110,290,009	112,838,445	35.10	0.96%	\$ 86
200,000	110,190,009	112,737,638	35.07	0.87%	\$ 78
100,000	110,090,009	112,636,832	35.04	0.78%	\$ 70
BOS BOE TOTAL PROPOSED BUDGET	109,990,009	112,536,026	35.01	0.69%	\$ 62
(100,000)	109,890,009	112,435,219	34.98	0.60%	\$ 54
(200,000)	109,790,009	112,334,412	34.95	0.51%	\$ 46
(300,000)	109,690,009	112,233,606	34.91	0.42%	\$ 37
(400,000)	109,590,009	112,132,799	34.88	0.33%	\$ 29
(500,000)	109,490,009	112,031,993	34.85	0.24%	\$ 21
(600,000)	109,390,009	111,931,186	34.82	0.15%	\$ 13
(700,000)	109,290,009	111,830,380	34.79	0.06%	\$ 5
(800,000)	109,190,009	111,729,574	34.76	-0.03%	\$ (3)
(900,000)	109,090,009	111,628,767	34.73	-0.12%	\$ (11)
(1,000,000)	108,990,009	111,527,961	34.70	-0.22%	\$ (19)
(1,100,000)	108,890,009	111,427,154	34.66	-0.31%	\$ (27)
(1,200,000)	108,790,009	111,326,348	34.63	-0.40%	\$ (36)
(1,300,000)	108,690,009	111,225,541	34.60	-0.49%	\$ (44)
(1,400,000)	108,590,009	111,124,735	34.57	-0.58%	\$ (52)
(1,500,000)	108,490,009	111,023,928	34.54	-0.67%	\$ (60)
(1,600,000)	108,390,009	110,923,122	34.51	-0.76%	\$ (68)
(1,700,000)	108,290,009	110,822,316	34.48	-0.85%	\$ (76)
(1,800,000)	108,190,009	110,721,509	34.44	-0.94%	\$ (84)
(1,900,000)	108,090,009	110,620,703	34.41	-1.03%	\$ (92)
(2,000,000)	107,990,009	110,519,896	34.38	-1.12%	\$ (101)
(2,100,000)	107,890,009	110,419,090	34.35	-1.21%	\$ (109)
(2,200,000)	107,790,009	110,318,283	34.32	-1.30%	\$ (117)
(2,300,000)	107,690,009	110,217,477	34.29	-1.39%	\$ (125)
(2,400,000)	107,590,009	110,116,670	34.26	-1.48%	\$ (133)
(2,500,000)	107,490,009	110,015,864	34.22	-1.57%	\$ (141)

** ASSUMING A \$9,000 CURRENT ANNUAL TAX BILL

2020-2021 Budget Questions

Context regarding questions

What would it mean to have no property tax increase for 2020-2021?

To have zero increase in the Mill rate:

- Increase in Grand List by ~ \$22,500,000 or
- Decrease in budget by ~ \$780,000

It is too late to increase the Grand List, so the question becomes what is the impact of cutting \$780,000 from the combined BOE and BOS expense budget. See Table 1

BOS budget:

Using the 65% to 35% BOE – BOS proportions of the Town budget. For zero tax increase the BOS budget would need to be reduced by ~ \$275,000.

- Nine Line items make up 79% of the BOS budget
- Two of those nine, Insurance and Debt Service, cannot be materially changed for 2020-2020.
- One, Transfer Station is a budget reduction from 2019-2020

Thus, my questions focus on what in the budget will grow the Grand List in future years and what would it mean to take cuts in the departments below to total \$275,000.

- Police
- Parks and Recreation
- Fire
- Library
- Emergency Communications
- Subsidized Programs

Board of Finance: December 2019

N Simpson

BOS Budget Amount	Line Item	% of BOS Budget	% Change 19/20 to 20/21	% Change to Grand List Change
\$8,023,646	Highway	18.6%	4.14%	3.45%
\$7,205,184	Police	16.7%	2.80%	2.11%
\$2,521,895	Parks and Recreation	5.8%	0.77%	0.08%
\$1,558,282	Transfer Station	3.6%	-0.53%	-1.22%
\$1,439,950	Fire	3.3%	3.05%	2.36%
\$1,422,964	Library	3.3%	2.96%	2.27%
\$1,160,923	Emergency Communications	2.7%	2.15%	1.46%
<hr/> \$23,332,844	Sub Total	<hr/> 54.0%		
 \$9,485,797	Debt Service	22.0%	2.56%	1.87%
\$1,110,500	Insurance	2.6%	0.00%	-0.69%
<hr/> \$10,596,297	Sub Total	<hr/> 24.5%		
 \$33,929,141	Total of Line Items Above	<hr/> 78.5%		

Table 1



Sandy Roussas <sandyroussasbof@gmail.com>

Questions re 2020-21 budget - Public Building Maintenance

2 messages

neds2124@gmail.com <neds2124@gmail.com>

Mon, Feb 17, 2020 at 2:41 PM

To: Sandy Roussas <sandyroussasbof@gmail.com>

Questions for Public Works

- Would seem that the CC is much bigger and more diverse than the Sr C, but the Sr C is getting ½ the staff and most the staff benefits (\$25,737). Pg. 185 Why is more not being charged to GE?
- Community Center / Senior Center contribution the largest increases to Energy Costs.
 - CC / Sr C Electric (\$157,080 / \$39,270) Oil (100,000 / 10,000). Pg. 185
 - No Building Management System. – Ball park cost to install
 - Is a group such as Sustainable Energy looking at the building's energy usage?
 - Has solar been investigated?
- What is causing the big drop in Parks & Recreation Utilities \$15,260 ?
- What is the assumption for starting operations at the new Police station and closing out 3 Main St? Will 3 Main St be completely closed?
- Energy for the new Police station is budgeted at \$57,000, 145% higher than 2019-20 energy at the old police station. To what extent is this sq. ft. increase and to what extent is this energy inefficiency. Is Sustainable Energy looking at this?
- For Heating Fuel, what is driving the 40% increase in Oil, the 186% increase in Natural Gas and 83% reduction in propane?

Ned Simpson

C 734-645-0828 | neds2124@gmail.com

Sandy Roussas <sandyroussasbof@gmail.com>

Mon, Feb 17, 2020 at 3:13 PM

To: Dan Rosenthal <dan.rosenthal@newtown-ct.gov>, Robert Tait <robert.tait@newtown-ct.gov>, fred.hurley@newtown-ct.gov

[Quoted text hidden]

The background of the slide features a large, faded seal of the Newtown Police. The seal is circular with a gold border. Inside the border, the words "NEWTOWN CT" are written in a semi-circle at the top, and "POLICE" is written in a semi-circle at the bottom. The center of the seal depicts a landscape with a red and white American flag on a pole, a green tree, and a white building with a steeple.

Newtown Police Budget

Presentation 2020/2021

Board of Finance

Budget Highlights

- Increased by 2.80%, \$195,980, most attributed to contractual increases and increased contribution to pension fund.
- Most line items remained constant for purchased services, software and equipment.
- Overtime line also remained constant.
- Vehicle purchases saw an increase due to a new model introduction of the Ford Explorer, \$7,440.
- Capital items needed purchase through asset forfeiture account, tasers, computer hardware, training cost, etc.

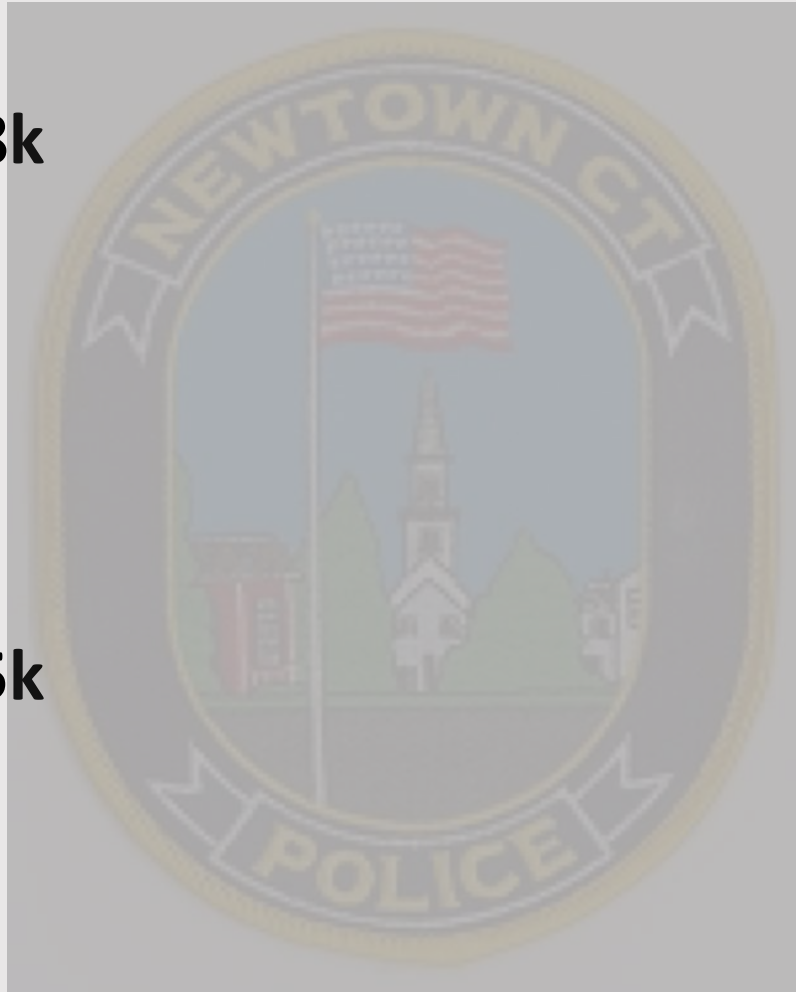
Question – Staffing Comparison

- Is the Newtown Police Department sized to similar Departments? (staffing)
- FBI provides statistics on adequately staffing a law enforcement agency per/capita: 1.8 to 2.1 officers per/1000
- $1.8 \times 28,000$ citizens (2010 census) = 50.4 Officers
- FBI Suggested staffing for Newtown = 50.4

Similar Departments

- **New Milford**
- **Population 28k**
- **64 sq/miles**
- **47 Officers**

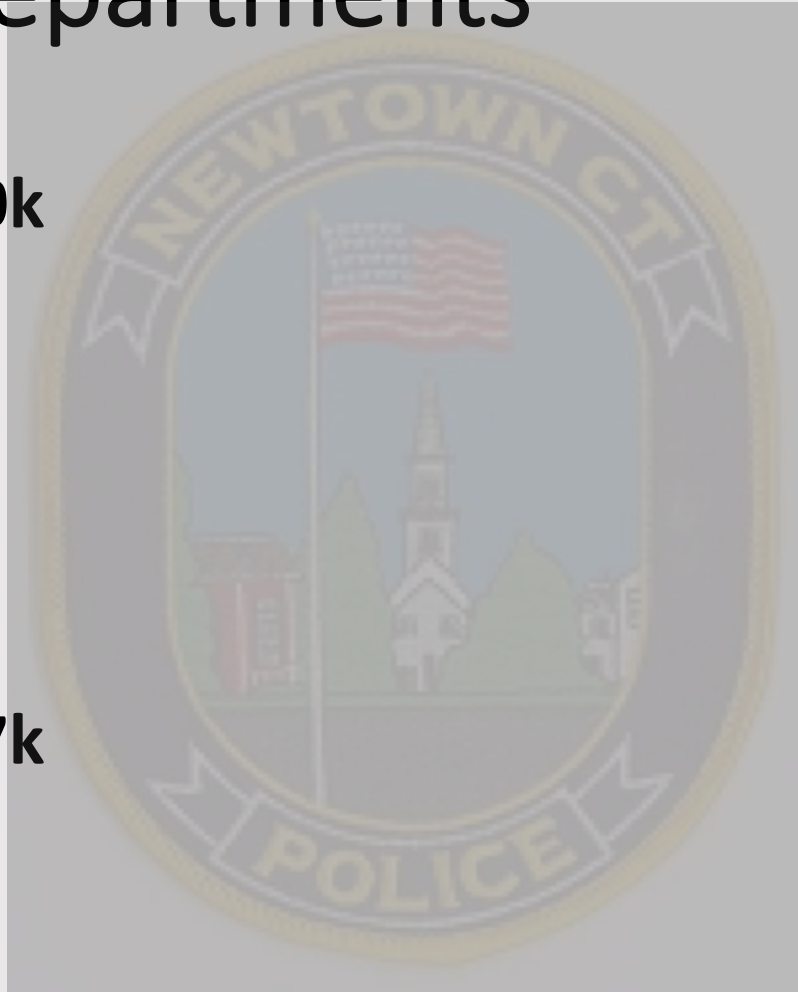
- **Ridgefield**
- **Population 25k**
- **35 sq/miles**
- **42 Officers**



Similar Departments

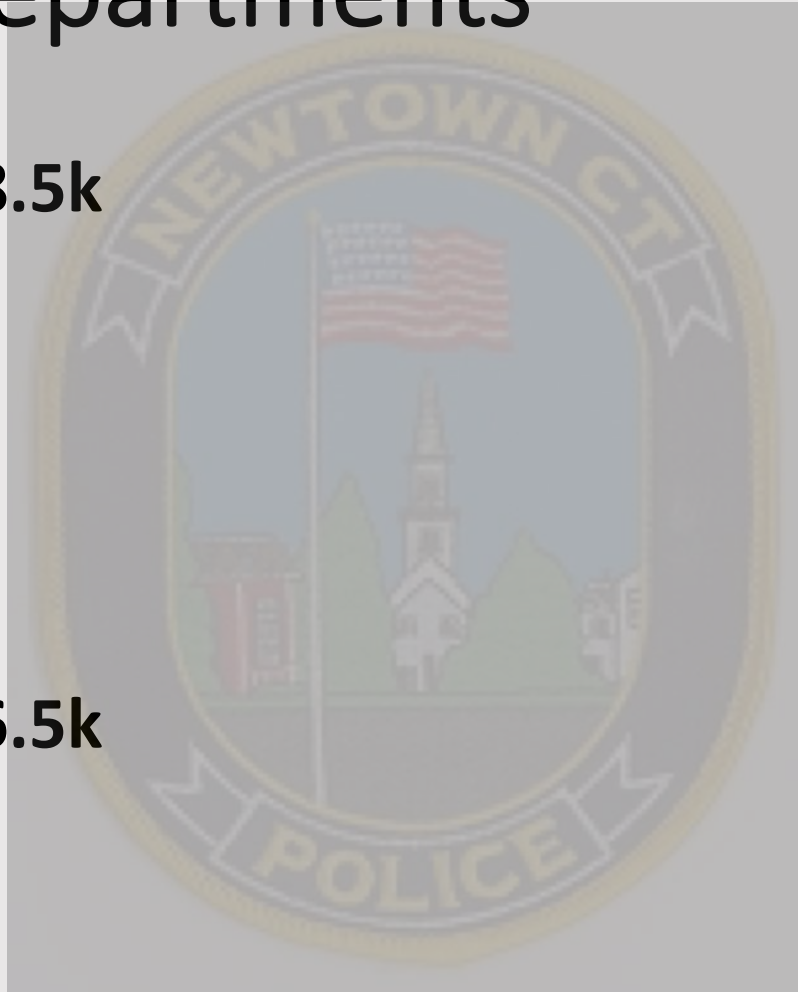
- **Monroe**
- **Population 20k**
- **25 sq/miles**
- **43 Officers**

- **Brookfield**
- **Population 17k**
- **19 sq/miles**
- **37 Officers**



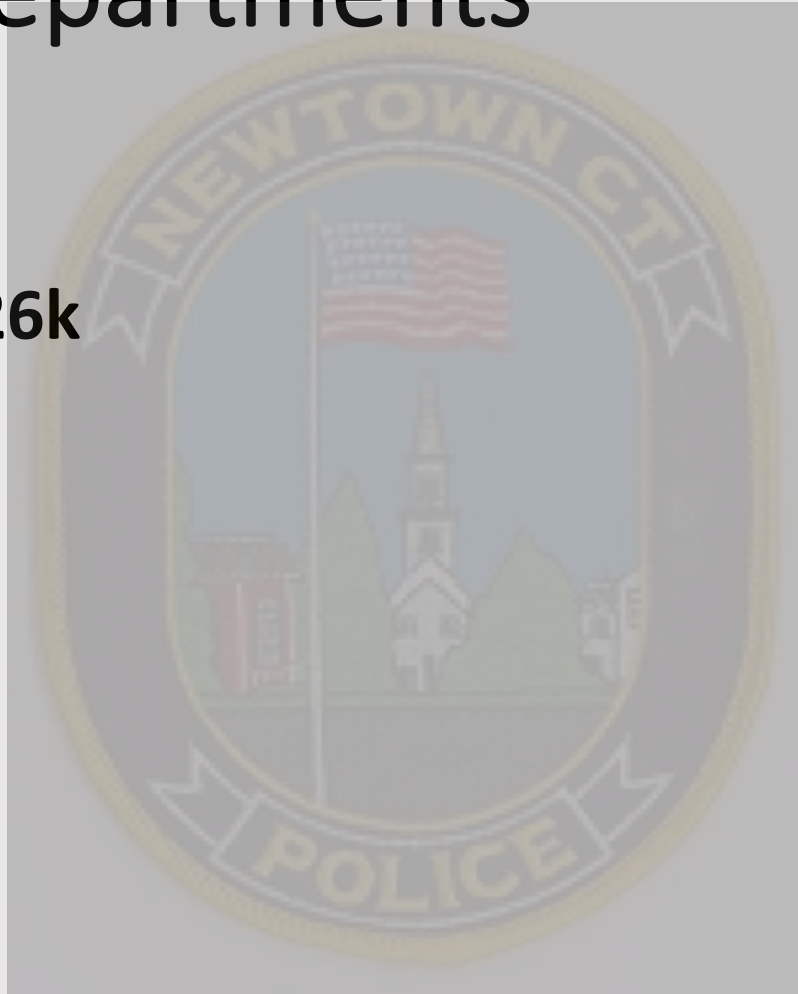
Similar Departments

- Bethel
 - Population 18.5k
 - 19 sq/miles
 - 40 officers
-
- Seymour
 - Population 16.5k
 - 50 sq/miles
 - 40 Officers



Similar Departments

- **Westport**
- **Population 26k**
- **19 sq/miles**
- **64 Officers**



Newtown Police Department

- **Population 28k**
- **58 sq/mile**
- **225 miles of surface road**
- **32,465 calls for service**
- **45 Officers (Formerly Had 47)**
- **28 Front line Patrol officers**
- **6 Field Supervisors (sargeants)**
- **1 Patrol Commander (lieutenant)**

Question –Extra Duty Impact on BOS Budget

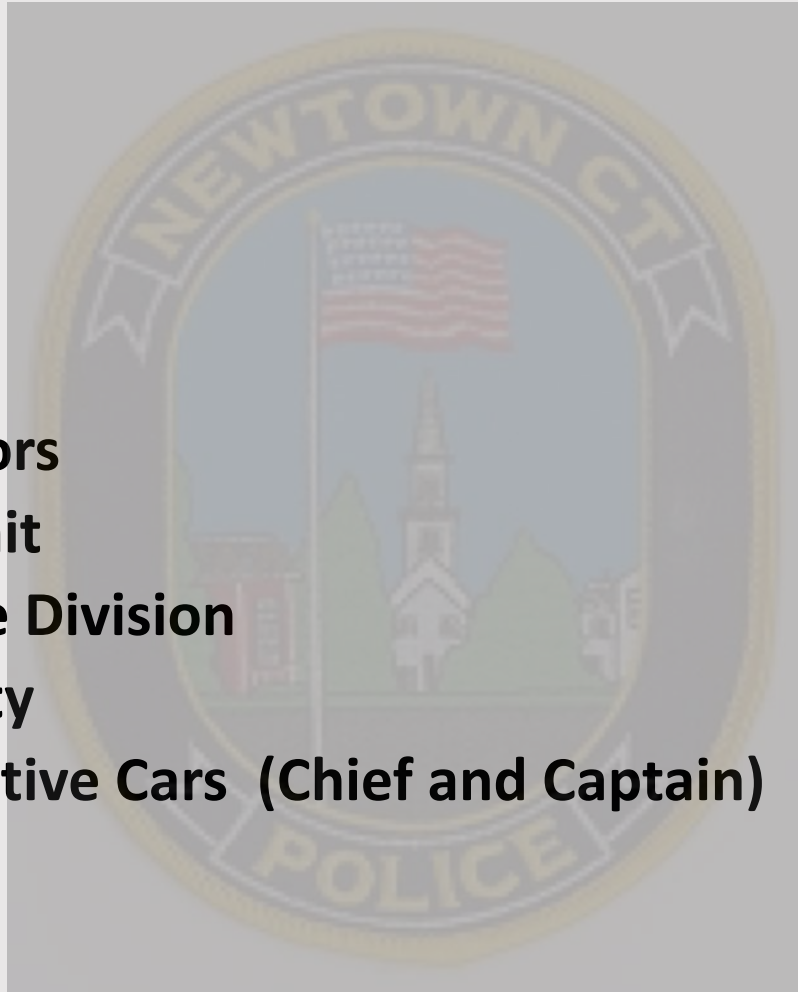
- No impact on BOS Budget
- Cost paid by private contractors
- Revenue producer
- Billable for Cruisers 2019 - \$325,089
- Billable Hours 2019 – 12,468
- Anticipated revenue 2020/21 \$300k
- Fee's, applicable taxes and contributions charged to vendor
- Jobs For Blue (Service Provider)

Cost of M-ATV To Budget

- Vehicle is not a patrol vehicle
- Limited emergency use
- Loaned by government program
- 40 miles on vehicle
- No anticipated maintenance cost due to condition of vehicle
- Regional asset - Blue Plan - sharing of municipal resources in case of emergencies
- Not owned by Town

Front Line Vehicles

- 10 Patrol
- 1 K9
- 2 SRO
- 3 supervisors
- 2 Traffic unit
- 3 Detective Division
- 4 Extra Duty
- Administrative Cars (Chief and Captain)



2019 Connecticut's Safest Towns/Cities

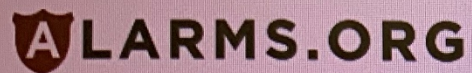
CT'S SAFEST CITIES

- 1. EASTON
- 2. NEWTOWN
- 3. WESTON
- 4. RIDGEFIELD
- 5. MADISON

SECURITYBARON.COM

2019 Connecticut's Safest Cities





Best Security Systems

Resources ▾

Home Secur

CT	City	Population	Violent crime	Property crime	Law enforcement employees	Total crimes	Crime rate per 1,000	Violent crimes per 1,000	Property crimes per 1,000	Law enforcement per 1,000
1	Ridgefield	25260	1	64	46	65	2.57	0.04	2.53	1.82
2	Ledyard	14808	8	52	30	60	4.05	0.54	3.51	2.03
3	Old Saybrook	10117	5	48	29	53	5.24	0.49	4.74	2.87
4	New Canaan	20461	0	101	50	101	4.94	0.00	4.94	2.44
5	Newtown	28015	6	122	48	128	4.57	0.21	4.35	1.71
6	Monroe	19653	10	105	55	115	5.85	0.51	5.34	2.80
7	Greenwich	63075	6	396	178	402	6.37	0.10	6.28	2.82
8	Suffield	15688	2	77	24	79	5.04	0.13	4.91	1.53
9	East Lyme	18744	8	88	28	96	5.12	0.43	4.69	1.49
10	Madison	18184	0	111	38	111	6.10	0.00	6.10	2.09
11	Simsbury	25164	5	150	45	155	6.16	0.20	5.96	1.79

Question?





TOWN OF NEWTOWN

PUBLIC WORKS DEPARTMENT

Virtual Net Metering or Indirect Solar and Direct Solar : How Do They Actually Work? What's The Difference?

DIRECT SOLAR: This is what we see when we see solar panels on the roof of a building. The power generated by those panels are used directly by that building. The solar generated electricity replaces electricity that would have come from the power grid. Typically, a photo voltaic or solar electrical system will provide approximately 30% of a building's total electrical usage over a full year. The percentage is higher in the summer with more hours of sunlight and lower in the winter.

To calculate real savings you have to know a couple of things. First, what is the average cost per Kilo Watt Hour (KWH) from the electrical grid. Typically this will be approximately \$.16 per KWH when you add the generation cost, delivery cost and various fees that may or may not include demand charges. Second, you need to know what you will be charged for the solar generated electricity. If a developer installed and owns your system you will have a PPA or power purchase agreement. You may pay a monthly lease fee or pay for each KWH generated by the solar electric system.

If you are paying per KWH, it is simple to calculate the savings. If your KWH rate is \$.10 for solar generated power then you are avoiding \$.06 per KWH from grid generated electricity (\$.16 KWH/utility rate minus \$.10 solar rate = \$.06 per KWH consumed). On an annual basis, if you used 5,000 KWH of solar generated power, you would have net savings of \$300 (\$.06 x 5,000 KWH = \$300.00). If the 5,000 KWH represented 30% of your total annual consumption, then your total annual consumption and cost before the introduction of solar would have been 16, 667 KWH of consumption and cost \$2,666.72 annually. You would reduce your carbon foot print by 30% and reduce your utility payments from \$2,666.72 - \$800 to \$1,866.70. But you would still have to pay the solar system owner \$500 for the 5,000 KWH they generate. The net cash savings of \$300 from the original bill, before solar, would be a percentage reduction of 11.2% (\$300 / \$2,666.72).

We took pains to describe what the real cash savings may be because it may be that net number which determines if a return on investment makes sense. Making no investment of your own money with both a net cash savings and reduction of carbon footprint is usually a good deal. When it comes to budgeting however, you have to be careful. While the net cash savings as calculated are real, the utility can throw a curveball. If the utility increases the charges either for

demand, distribution or customer fees, those increases could equal or exceed your savings from the solar. So, on an annual basis, while the solar did save you cost, your overall bill may still go up because of the increased charges on the 70% of electrical consumption not covered by your direct solar system. How to cover that 70% is where "Virtual Net Metering" offers a solution.

INDIRECT SOLAR / VIRTUAL NET METERING: Approximately 30% of the homes and other buildings in CT are candidates for direct solar. The limitations are caused by building roof orientation, tree shading, inadequate roof structure to support a direct solar system or needed roof repairs that may kill the overall economics.

Virtual Net Metering or Indirect Solar is simply the creation of a solar electric generating station connected directly to the grid and not to any specific building. It is a power generating station just like the other utility owned coal, oil or natural gas generating stations. The difference is that we become both customer and de facto participant in the creation of this indirect solar system.

The way it works is that a developer identifies a piece of land that can be zoning approved for a solar farm. They get agreement with the utility company for that area to inter-connect with the main electrical grid. They may or may not get various financial supports for this type of project from the State. Then they sign up municipalities to fund the off take of the electricity to the main power grid. The proviso is that the VNM credit capacity is available, in the queue, and the municipality's VNM application has been approved by the utility.

The municipalities pay the developer a per KWH charge. Typically, these unit charges for us have been in the \$.086 to \$.089 range per KWH. The municipality agrees to buy a certain amount of electricity and the developer agrees to generate a certain minimum amount of that power. For us, those units have been approximately 1,500,000 KWH annually for each Megawatt (MG) of generating capacity. The municipality can assign the value of that solar electricity up to five (5) beneficial accounts. These typically are schools, government buildings or waste water treatment plants etc. Under this program, the utility by State Law, must pay or credit to the municipalities a "Virtual Net Metering Credit" equal to the number of KWHs generated by the VNM Project and assigned to each of the five municipal buildings listed as beneficial accounts. This is accomplished by assigning, on a percentage basis, what each buildings annual electrical consumption would be related to the other four buildings. However, the entire credit could be applied to a single building which often is a high school that would consume more than 1,500,000 KWH by itself.

Now we get to the more complicated part. The value of the VNM Credit is initially equal to the value of the Rate 30 billing of the utility at the time the VNM Credit application is approved by the utility. Thereafter, the rate 30 value is adjusted every 6 months, so the unit VNM credit value paid will also vary but in total not exceed the "VNM Credit Cap" established when the project is first approved by the utility.

This "Cap" is the number of KWH that the solar project is projected to produce times the unit cash credit per KWH at the time the project is approved and accepted by the utility.

As an example, if our per KWH credit rate was set at \$.15 per KWH and we are projected to have 1,500,000 KWH produced, our "VNM Credit Cap" would be set at \$225,000 annually. If during the following year, the average Rate 30 pricing fell to an average of \$.14 per KWH, we would be able to buy 1,607,143 KWH at \$.14 per KWH with our \$225,000 Cap. On the other hand, if the Rate 30 pricing went up to \$.16 per KWH the following year, we would only be able to buy 1,406,250 KWH with our \$225,000 Cap. The Cap is a fixed limiter on any contractual arrangement you may make. This makes it critically important how you structure your contract with your developer.

We have had various projects approved with initial VNM credit ranging from \$.147 to \$.155 per KWH, setting caps from \$232,000 to \$257,000 per year. We agree to purchase all available solar power up to the "Cap" at our developer price of \$.089. Anything over the cap is purchased at the wholesale power rate (\$.03 - \$.05) for which Eversource will credit back to us the same price, which holds us harmless. If the developer does not meet the minimum solar production allowing us to reach our maximum credit Cap, we have a reimbursement clause in our contracts that provides a minimum savings for non-production of solar power equivalent to approximately what the wholesale power price would be. This latter situation is applied over time to allow for the vagaries of weather. Any established contractual shortfalls should be reimbursed by payment from the developer. In the case of production overages, the municipality pays the developer the equivalent wholesale rate which is reimbursed by the utility. We have been told that the utility actually sends a check to the municipality for the power purchased over the Cap at the wholesale price. In our two - three years of operation we have yet to experience either scenario.

Aside from saving the planet, what cash are we, if any, going to save? The net cash value to the municipality is the VNM Credit minus what is paid to the developer. In our case, our first project had a cost per KWH from the developer of \$.086 and the applicable VNM credit rate was \$.14870 per KWH. The net cash savings per KWH is calculated at \$.0627 per KWH ($$.1487 - $.086 = $.0627$). On 1,500,000 KWH generated by the developer the total net value of the credit to the municipality would be approximately \$94,050. This amount would be credited by the utility on each of the municipality's accounts as a cash credit to that building's bill. If a building represented 31% of the allocation then \$29,155.50 ($.31 \times \$94,050 = \$29,155.50$) would be deducted from that building's bills over the year.

Now to double check this calculation, you still have to provide 100% of your electricity for each building. You can produce 30% by direct solar and purchase the remaining 70% from the grid or you may purchase 100% from the grid. You need to remember that VNM Credit is a cash credit on your bill and is not provided energy to your building. If we go back and remember that typical grid cost for a KWH of electricity is \$.16 per unit, then 1,000 KWH would cost \$160.00. However, after applying the net VNM credit (\$.086 developer charge minus VNM utility credit of \$.1487) of \$.0627 or \$62.70, your net bill would be \$97.30 ($\$160.00 - \$62.70 = \97.30) for a net cash reduction or savings of 39.2%.

One program does not exclude the other. You can still put direct solar on a building when the building characteristics are accommodating and then apply the indirect or VNM credit program

to the balance of grid consumed electricity. We are doing exactly that on a number of our school buildings where we put the maximum amount of direct solar on every available square foot of roof but could not get appreciably over providing 30% of our consumption. VNM will allow us to bridge that gap between direct generation and credit for adding solar generating capacity to the overall power grid.

While this presentation has dwelt on creating and utilizing alternative energy, we have the same commitment to overall energy conservation. In simple terms, if conservation can reduce your electrical load then those direct solar power systems may provide substantially more than 30% of your electrical consumption. This is all about a balanced and multi-faceted approach in dealing with this problem and its opportunities.



TOWN OF NEWTOWN
PUBLIC WORKS DEPARTMENT

April 18, 2019

1. VNM –

The 2MW for the High School is still on track to be available by the end of the year. The vendor had been concerned about acquisition of panels but they have solved that problem and now have their full complement in hand.

An additional 2MW for (Reed 5-6 School, Middle School, Sandy Hook School, Head of Meadow School and Middle Gate School) is still contingent on legislative approval of expanding the VNM cap. We are already in the queue if the cap is expanded. We believe that we are very close to the head of the line, if not first, if there is more cap capacity. We lobbied members of the General Assembly on the 10th to add the expansion of the VNM cap to a bill to get passage. We also clarified with Eversource the legality that you can have both direct (Onsite PV) and indirect (VNM) on the same building. You just can't exceed overall consumption or double dip. Direct solar may provide 30% of a project's consumption and VNM can be applied to the 70% balance of consumption not provided by the onsite solar. Each 2 MW project produces approximately \$175,000 in annual net savings.

2. New Direct Solar Projects and ZREC Applications:

Stratford Hall was ruled out at this time for a solar project because there are still sensitivities on the integrity of the roof and the fact that the beneficiary is a for profit entity.

100 KW systems have been proposed and ZREC applications submitted for the new Community Center, new Police Station and the Hook & Ladder Fire House on Church Hill Road. The first two projects were submitted within the two week application window which ended Monday, April 15th at 1PM. The Hook & Ladder project wasn't proposed until the afternoon of the 15th but was submitted the next day. Because the solicitation was undersubscribed by 70%, the community center and police station are guaranteed a maximum funding each of 156 RECs annually at a unit price of \$100.74 for a potential annual payment of \$15,715.44 for 15 years or \$235,731.60 in total toward project costs. This benefit will be reassigned to the developer of the project when chosen. Finally, because of such a massive under subscription we also expect the Hook & Ladder project to be funded at the same level. All three projects should be operational by next fall. Total ZREC funding for these three projects would total \$707,194.80.

3. ISO Capacity Credits:

Applications have been filed to include Sandy Hook School, Sandy Hook Fire House, Sandy Hook Sub Station and Dodgingtown Fire House to the portfolio that already includes Reed School for eligibility this year for capacity credits offered by ISO (Independent System Operator) -New England for eligible or new electrical generation capacity being brought online. When the three new direct solar projects mentioned above (Community Center, Police Station and Hook & Ladder Fire House) are completed, they too will be added to our portfolio for capacity credit payments.

The question has been asked why we don't or we can't get capacity credits for all our projects. First, only the owner of the project meter generating the power is eligible for the credit. The Town doesn't own any of the VNM meters. Second, only recent or new projects are eligible. Our WWTP system that is almost 10 years old, for example, is not eligible because it pre-dates the program. When all the newer projects are online and eligible, this credit may average \$50,000 or more annually in direct cash payments to the Town.

4. Batchelder: Still in the remediation phase.

5. Other issues:

There is a major issue affecting the private sector development of solar generation, in CT, that has potentially a huge impact going forward. First, Eversource, with the support of PURA and DEEP are backing the tariff or purchase of electricity from private developers at what is claimed to be the avoided cost of \$.035 per KWH. However, Eversource has a Standard Offer for supply of \$.105 per KWH. Eversource doesn't do anything to increase supply but wants to tack on \$.07 per KWH for the electricity a private developer has generated and then charge the public \$.105 for that same KWH. The private developers feel they should be getting some part of that \$.07 that Eversource is keeping for itself for the electricity that the private developer is actually creating. In the old days, when Eversource was actually generating the electricity, they certainly charged more than \$.035 per KWH on your bill for supply.

The second issue is that Eversource was pushing the reduction of private development generation project contract to 7 years from the current 20 or 30 years. This by itself would make virtually all private solar development un-bankable and that would include financing from the State supported Green Bank.

By discouraging the development of private sector solar electrical generation located in CT, the economic development benefit of jobs, material purchases and local taxes are lost and absolutely nothing is done to reduce pressure on the "Congestion Charge" which is on every electrical customer bill, commercial or residential, public or private. The "Congestion Charge" will continue until a sufficient level of electrical generation capacity exists in CT.



TOWN OF NEWTOWN
PUBLIC WORKS DEPARTMENT

To Whom It May Concern:
8/27/2019

The total current electrical consumption for all the public buildings for the Town of Newtown is approximately 11,113,511 KWH annually. Of this total, 8,933,462 KWH is for (7) schools. The balance is for general government buildings (2,180,049 KWH). This overall electrical consumption is down from a high of approximately 13,500,000 KWH annually due to substantial energy conservation projects in both the schools and the town government buildings and the introduction of direct solar PV systems where possible.

Analyzing just the school portion of the consumption, 954,881 KWH came from direct PV solar electric systems mounted on the schools. The remaining 7,978,581 KWH was provided by the utility grid. The direct solar production is expected to top 1,100,000 KWH when all the systems have a full year of operation. In addition, there are final electrical light upgrades being completed this summer which will further reduce school system consumption by 300,000 KWH. The average school electrical consumption required from the grid and available for VNM credits would be 7,533,462 KWH annually going forward, with all direct solar projects and energy conservation projects completed and operational.

The Town has 5MW of "Virtual Net Metering" projects either completed, under construction or pending final contract offering from its utility, Eversource. The projects are as follows:

1MW operational with original installation by Solar City and currently owned by Florida Power & Light through its solar management subsidiary. All beneficial accounts are town government services or operational buildings.

2MW with Eversource contract in hand and under development with Alco. This project is split into two 1 MW projects as the Jackson and Sherman projects. First year production/sales for each is 1,606,048 KWH, at a VNM Cap of \$235,832. The dedicated beneficial accounts to cover the potential 1,606,048 KWH of annual production are divided among various school buildings so that each project has more than the production guarantee available to receive the VNM credit. The high school was originally listed as the beneficial account before the 2MW was split but now the other schools are the named accounts.

2MW waiting for confirmation/receipt of Eversource VNM contract. With our PPA in place with anticipated development by Alco, the High School with 3,800,000 KWH of annual electrical consumption is the named beneficial account.

Overall the schools, with projected 7,533,462 KWH of available annual electrical consumption, will fully cover the approximately 6.4 million KWH of the 4MW systems of VNM production under construction or soon to be offered through Alco.

Submitted by:

Frederick W. Hurley, Jr.
Director of Public Works



TOWN OF NEWTOWN
PUBLIC WORKS DEPARTMENT

Request For Proposal
Issued October 28, 2019

Design, Provide, Install & Maintain Three (3) Photo Voltaic (PV) Electric Systems For Hook & Ladder Fire Station, 12 Church Hill Road; New Police Station, 199 South Main Street and New Newtown Community Center, 8 Simpson Street, Newtown, CT.

Firms Eligible To Respond: Only firms who have previously applied for, received and successfully completed a CT ZREC project(s) are eligible to respond. Each proposer is required to list CT ZREC projects successfully completed.

ZREC Secured: The Town applied for, and successfully received under the Small ZREC Program, a ZREC in the amount of \$100.74 per KWAC for up to 100 KWAC of installed PV capacity. A total of 156 RECs was calculated for a total maximum annual eligible amount of \$15,715.44, for 15 years of the project, with an operational date no later than July 1, 2020. The Town has already paid the "Performance Assurance Amount" of \$785.77, as required by the program, to secure the availability of this ZREC for each of the three locations. (Attachment A)

ZREC Assignment: The Town will assign all the rights and obligations of the awarded ZRECs to the successful proposer. It will be the responsibility of the proposer to execute all the requirements to complete this assignment. A copy of the applicable tariff contract and advisory document are included in Attachment A, for reference purposes.

Guarantees, Warrantees, Insurances and Standard Contract: With the ZREC Contract Assignment, the Proposer will be required to meet all the requirements of the "Standard ZREC Contract" approved by Eversource and PURA. The "Standard ZREC Contract" will prevail in any contract provision (Power Purchase Agreement / PPA) between the Proposer and the Town which inadvertently is in conflict. The Proposer will offer a "Guarantee of Production/Savings" to the Town. The Proposer will be expected, at an agreed rate, to reimburse the Town for any shortfall, in energy production, adjusted for unforeseen weather patterns that is the fault of the Proposer. The latter, for example, would include inadequate maintenance and/or failure to make timely repairs. Finally, insurances will be given between each party to as a minimum meet those required by Connecticut State Statutes and as agreed to by the Proposer

and the Town to protect the interests of both parties.

Scope of the Project: The Town was successful in being awarded a 100 KWAC Small ZREC worth 156 RECs, for each of the three project buildings. Doing a preliminary layout of available roof areas, all the projects could potentially approach the maximum capacity projection of 100 KWAC. However, the actual consumption for the Hook & Ladder Building, for a recent twelve months of operation, clearly indicates a substantially lower consumption profile than would be produced by a 100 KWAC system. Consumption for the 12 months, from June 2018 thru May, 2019, totaled 86,590 KWH. Actual bill with spread sheet (Attachment B). Depending on component efficiencies, a nominal 60 KWAC system seems to be the more likely configuration to produce current annual consumption requirements. The Proposer is expected to design a system that produces the maximum allowable energy under the program guidelines for this site.

The other two (2) projects will each consume substantially more power than will be produced by the two 100 KWAC systems and have sufficient roof area available to install 100 KWAC systems. The calculation of consumption for each site depended on available usage figures. In the case of the new police station (which will be a substantially larger building), the calculation is based on what the existing police station consumes, which is 288,000 KWH annually. Copy of actual bill and spreadsheet (Attachment C). For the new Community Center, it consumed over 200,000 KWH in its first quarter of operation, which is greater than a 100 KWAC PV system can produce. Actual bill (Attachment D).

Overall, the Town of Newtown seeks proposals to enter into a contract for a "Power Purchase Agreement" (PPA) or agreements, with a qualified company to design; finance; provide; install and maintain for the life of the contract(s) (nominally 20-25 years) a photo voltaic (PV) solar electric system on the main Hook & Ladder Fire House, 12 Church Hill Road (site photo Attachment E); new Police Station, 199 South Main Street (Site roof diagram Attachment F); and the new Community Center at 8 Simpson Street, (Site roof diagram Attachment G) Newtown, Connecticut.

Design Requirements and Limitations: The architect/engineers for the Community Center and new Police Station have all accepted installation of flat collector panels but not tilted panels. Their concern is that the tilted panels can create both an imbalanced and possible excessive snow load. The Hook & Ladder Fire Station does have opportunity for some tilting of panels on peaked roofing but the bulk of that installation would also probably be flat panel mounting, on flat roof.

The local Fire Marshall and Building Official now require a minimum clearance around all solar panels from roof edges of at least 4'. The Proposers are required to verify before submitting that their system will meet all Local, State, and Federal building codes. Discovery of restrictions after the fact that existed prior to the proposal submittal date will not be accepted as a cause or reason for adjusting the PPA KWH unit pricing.

It will be the Proposers direct responsibility to verify by CT licensed professional structural engineer that any and all roofs and building structures utilized in any of these projects meet or exceed all applicable building and or fire safety codes and capacity requirements for installation of their proposed systems(s). All safety requirements must **exceed** and not merely meet all minimum requirements.

Roofing / Re-Roofing: All three (3) project buildings have or will have entirely new roof membranes that are no more than two years old. The fire house has some pitched roofs that have architectural shingles with a similar life span that may be included in that project. No re-roofing is anticipated during the expected life (25 years) of the solar projects.

However, should a situation arise requiring removal of the solar panels and other associated equipment for necessary roof repair, the Developer shall assist the Town in any maintenance, repair or re-roofing requirement not of their cause for which they shall be compensated at a reasonable rate for their expenses and for the loss of production revenue and free of the parallel production guarantee to the Town on a percentage basis.

Snow Removal and Protection From Falling Snow: Falling snow from solar panels can be a hazard. The Proposer must make allowances in their designs and installations to protect walkways and especially doorway areas from this hazard. This should not be a significant problem as most, if not all, of the design areas available will be for flat panels and be behind parapets or distanced from doorways.

However, this raises another issue. Although all the roofs must be rated for snow loads, excessive buildup of snow, particularly on flat roofs, may lead to a structural failure. This threat has only occurred twice in the last 25 years. While we do not expect the Proposer to remove the snow, their oversight skills as part of their maintenance responsibilities is critical in removing a potentially serious safety hazard and avoid damage to their solar array. They will be obligated to perform this oversight when called upon by the Public Works Director or his designee.

Preservation of the Investment Tax Credit (ITC): The successful Proposer will be required to commit sufficient investment prior to the reduction scheduled for the federal investment tax credit to ensure no negative affect to a "firm" PPA unit rate per KWH. While the Proposer must rely on their own professional tax and legal experts, it is our understanding that a 5% investment prior to scheduled tax credit reductions can preserve the full investment tax credit (some experts have suggested 7% to avoid any pricing vagaries after the fact that could result in the project not meeting the minimum threshold to preserve the ITC). Purchase of a fungible item such as solar panels set aside and dedicated to each specific project may meet that requirement. If the Proposer can-not demonstrate compliance with this requirement, the Town will not be liable for or accept an increase in the PPA unit rate based on the failure to comply.

Pricing, Escalation and Savings Assumptions: The Town is interested in a fixed price

contract with no percentage escalators. We currently have small, medium and large ZREC projects and Virtual Net Metering projects with fixed prices with no escalation clauses, blended rate contracts, and contracts with both fixed and programmed increase elements. You may propose some other pricing structure, which includes elements of the above, but our preference is fixed, as stated. When any monetary calculations are performed for projected savings, please remember to state the annual escalation for utility unit costs.

Executive Proposal Summary: In lieu of elaborate spreadsheet and colorful dazzler submittals, we would appreciate the use of the “Proposal Summary sheets (Attachments H, I, and J) for each project. As we expect only qualified firms with previously successful ZREC CT experience to propose, it will be the numbers that will provide the clearest path to our decision.

Site Visits and Full Size Plans: The site visits scheduled for 1PM to 4PM on Thursday, November 7th will start at the Public Works Facility at 4 Turkey Hill Road, Newtown, CT 06470. Full size roof plans will be available for inspection at that time.

Timeline:

October 28, 2019	RFP Released
November 7, 2019	Site Visits
November 14, 2019	Final Questions
November 21, 2019	Proposal Submitted
November 28, 2019	Selection Completed
November 29, 2019	Award Issued
December 31, 2019	Proposer Meets ITC Required Investment

Format Requirements: Three copies of the proposal in an 8 ½” by 11” format in a sealed envelope with the Proposer’s contact information on the outside.

Submittal Deadline: 11 AM, Thursday, November 21, 2019, Office of the Finance Director, Town of Newtown, 3 Primrose Street, Newtown, CT 06470.

Project Contact: Fred Hurley, Public Works Director, Town of Newtown, 4 Turkey Hill Road, Newtown, CT 06470, (203) 270-4300 or fred.hurley@newtown-ct.gov

WINTER STORM BREAKDOWN

2019-2020

					SAND		TREATED SALT		OVERTIME		TOTAL	
		IN	OUT	STORM	YDS	\$25.75	TONS	\$70.10	HOURS	COST	STORM	
1	12/1-12/2/2019	Sunday Continue to Monday	12:00 PM	7:00 AM	2" Snow/Ice	305.5	\$7,866.63	367.57	\$25,766.66	413.75	\$18,845.70	\$52,478.98
2	12/2-12/3/2019	Monday Continue to Tuesday	9:00 PM	7:00 AM	4" Snow/Ice	192	\$4,944.00	228.92	\$16,047.29	298	\$13,557.25	\$34,548.54
3	12/11/2019	Wednesday	2:30 AM	7:00 AM	3-4" Snow	140	\$3,605.00	175.28	\$12,287.13	104	\$4,737.35	\$20,629.48
4	12/17-18/19	Tuesday to Wednesday	1:30 AM	7:00AM	ICE	410	\$10,557.50	533.36	\$37,388.54	306	\$13,962.41	\$61,908.45
5	12/20/2019	Friday	6:00 AM	7:00AM	Mixed percipitation	91	\$2,343.25	112	\$7,851.20	9	\$416.07	\$10,610.52
6	1/8/2020	Wednesday	2:00 AM	7:00AM	Mixed percipitation	133	\$3,424.75	161.66	\$11,332.37	127.5	\$5,747.71	\$20,504.83
7	1/18-1/19/2020	Saturday Continue to Sunday	2:00 PM	3:15 AM	3 " Snow	268.5	\$6,913.88	336.89	\$23,615.99	383.25	\$17,561.66	\$48,091.52
8	2/13/2020	Thursday	1:00AM	7:00AM	Mixed percipitation	93	\$2,394.75	125.08	\$8,768.11	148.5	\$6,832.02	\$17,994.88
Sand for residents at the Transfer Station												
				TOTAL	1633	\$42,049.75	2040.76	\$143,057.28	1790	\$81,660.17	\$ 266,767.20	
					YDS	Cost of	Tons	Cost of	OT Hrs	Cost of OT	Total cost of	
					Sand	Sand	Salt	Salt			Storms	

Budget 3820 70,670 4355 310,686 196,955

2019 Budget 18.50 71.34

2019 Actual 2744 25.75 4432 70.10

4

DEPARTMENT: WINTER MAINTENANCE**ACCOUNT DETAIL**

Salaries & Wages - Overtime: This account is used for overtime for storms from November 15th to April 15th. An average of 4,205 hours of overtime has been required on a five year average. At the current average of \$45 per hour (average of all rates) for overtime, the total budget for 4,599 hours is \$206,955.

Social Security Contributions: This amount reflects the employer's share of the Social Security and Medicare federal retirement program (Federal Insurance Contributions Act). The employers share is 7.65% of payroll (including overtime). 6.2% is for Social Security and 1.45% is for Medicare.

Contractual Services: This account covers contracted removal of winter debris from catch basins and street sweeping. The complete cleaning of all catch basins and roadways is a continuing requirement under current Federal and State storm water discharge regulations. Outside vendors will sweep 800,000 linear feet (150 miles) of roadway at \$0.106 per LF for a total of \$84,800 and clean 3,000+ individual catch basins at \$19.65 per basin for a total of \$58,950. We may also contract for approximately \$20,000 of front end loader time for severe storms.

Sand: The five year rolling average for sand usage has been 3,820 cubic yards annually. At the current price of \$18.5 the total would be \$70,670.

Salt: This account covers treated salt used for winter deicing. The equivalent of 4,355 tons of treated road salt has been used annually over the last five years. At a current cost per ton of \$71.34, the budget cost would be \$310,686.

Machinery & Equipment: This account covers replacement parts and repairs on sanders, plows and plow blades for trucks. The full allocation has been needed each year based on the current condition of plows and sanders.

DEPARTMENT: WINTER MAINTENANCE**WINTER MAINTENANCE - MEASURES & INDICATORS**
(Fiscal Year)

<u>Measure/Indicator</u>	Actual <u>2012</u>	Actual <u>2013</u>	Actual <u>2014</u>	Actual <u>2015</u>	Actual <u>2016</u>	Actual <u>2017</u>	Actual <u>2018</u>
Number of Snow Plowing Operations	6	18	23	25	14	15	20
Overtime Hours	1,764	4,280	5,080	6,986	2,913	3,708	4,306
Tons of Salt Used	1,419	4,323	6,103	5,815	2,536	3,092	4,229
Yards of Sand Used	1,193	3,584	5,793	4,958	2,079	2,571	3,699