HOLLISTON FINANCE COMMITTEE
MEETING MINUTES
November 18, 2014

The Committee convened in Room 105 at Town Hall at 7:02 PM. Present from the Committee were Chairman Ken Szajda, Vice Chairperson Michelle Zeamer, Bill Dowd, Beth Liberty and Brendan Shea. Dan Alfred and Charlie Kaslow were absent.

1. Energy Saving Opportunities – Howard Hager, local resident and CEO of Renewable Energy Design presented the results of recent efforts to reduce the Town's energy costs, and an analysis of additional opportunities. (Attachment I) Several members of the Committee noted that Mr. Hager's suggestions and proposals were attractive, but required the support and follow-up of the Board of Selectmen and School Committee. The matter was taken under advisement.
2. Minutes – Moved by Bill Dowd, Seconded by Michelle Zeamer to approve the minutes of the October 21, 2104 meeting. Five in favor, none opposed, no abstentions, the motion carried. Moved by Bill Dowd, Seconded by Michelle Zeamer to approve the minutes of the October 27, 2104 meeting. Five in favor, none opposed, no abstentions, the motion carried.
3. Free Cash – Town Administrator Paul LeBeau advised the Committee that the State had certified Free Cash in the amount of $690,000. This is approximately $223,000 less than the amount the Town submitted for certification. The certification document referenced this approximately $223,000 as "proof adjustment", but there was no explanation provided. Paul has asked for a review of the certification, and it is possible the amount could be revised. In response to a question from Bill Dowd about the previously reported reduction in estimated Free Cash due to the timing of Chapter 90 reimbursements from the State, Paul reported that while the Chapter 90 work in FY14 was complete, because some of the work was done late in the year, the process of requesting and receiving that portion of the money had pushed receipt beyond the date at which it could be counted for FY14. The FY14 reimbursements will therefore work into FY15 Free Cash. Bill Dowd asked about the disposition of the two issues Paul had informed the Committee of on the evening of Town Meeting: deletion of a proposed recovery of surplus flexible spending account funds, and addition of interest income from the agency account used for Town and employee money for health insurance. Paul confirmed that the flexible spending account dollars had been deleted from the Free Cash calculation, and that due to the complexity of trying to recover the interest in the agency account at this point in the year, it was delayed, and therefore not a part of submitted Free Cash. Any actions with regard to the use or handling of 2014 certified Free Cash will have to wait until Annual Town Meeting in May of 2015.
4. Town Meeting Votes – Ken Szajda, referred to a version of the budget worksheet he had developed to reflect the impacts of the October Town Meeting votes. Because Stabilization had been reduced by $474,000 AND the $85,000 transfer into the Capital Expenditure Fund had been postponed, there was an unintended additional $85,000 in surplus in the FY15 budget. Bill Dowd inquired if that meant that the $85,000 from Stabilization was going to end up as a reduction in property taxes, and Ken said it would. Bill Dowd stated that was not what the Committee intended. Ken agreed, but acknowledged that is what happened. Ken reiterated what he has said for many years noting that any "surplus" in the bottom line of the worksheet is money that is not needed in the tax levy that year. While, short of another Town Meeting, there was no way to recover in FY15 the $85,000 erroneously taken from Stabilization, it would not affect the FY16 Levy Limit which would still be calculated based on the FY15 Levy Limit plus new growth. There was a discussion about ways to adjust for this error in the FY16 budget process, and it was agreed to deal with it during FY16 guideline discussions.
5. New Growth – Ken Szajda reported that while there had been some confusion at the FinCom meeting just prior to Town Meeting, he could now clarify how New Growth works in the worksheet. Using

FY15 as an example, $325,000 has been used as an estimate of New Growth. In December, the new growth figure will be finalized as part of the tax rate setting process. If new growth is higher than estimated in the model, the "surplus" in the budget worksheet increases, and the actual property tax levy goes down from the estimate. If new growth is lower than estimated, the "surplus" in the budget reduces and the property tax levy could go as high as the levy limit. Unfortunately, while most of the lines in the worksheet go from projected to actual before fall Town Meeting, this one does not. Short of another Town Meeting and a delay in setting the tax rate, changes in new growth flow directly to the tax levy. There was general discussion about the need for, and importance of, a thorough review of estimating new growth.

6. Remote Meeting Participation – Bill Dowd proposed that the FinCom ask the Board of Selectmen to adopt the practice of Remote Meeting Participation. He circulated an extract from the Attorney General's Open Meeting Law Guide. (Attachment II) He said that he would be away from late January to early March and would like to be able to participate in the many budget reviews that will be going on then. Ken Szajda expressed concerns about the possibility of abuse. While there was general support, the Committee decided to hold off on any action until more members are present.
7. Stipends for the FinCom – Bill Dowd proposed that the Committee vote to authorize an annual cash stipend for FinCom members. He stated that while he had been opposed to the whole notion of stipends for elected officials – particularly since they also made recipients eligible for Town subsidized health insurance – Town Meeting had resoundingly endorsed them following a number of elected officials who spoke in favor of them indicating that both the stipend and health insurance were a small price to pay for the long hours of unpaid labor provided by elected officials. Brendan Shea noted that paying stipends could be a problem for him since by his employment with the State, he was prohibited from accepting a paid job with the Town. He agreed to look into whether or not a stipend – even if he declined it – would be an issue. Town Administrator Paul LeBeau observed that he was not certain that what happened at Town Meeting should be considered as endorsement of an expansion of stipends, but rather a rejection of an effort to terminate the ones already being paid. Further consideration was postponed until more Committee members could be present.
8. Next Meeting – The Committee will meet on November 25, 2014 and one item on the agenda is the discussion with the School Committee about union contracts. However, given that Dan Alfred will not be present and he had expressed concerns about the contracts, Bill Dowd suggested that meeting be postponed until Dan could be present. All agreed. The Committee will meet on the 25th for other business.
9. Adjournment – At 9:10 PM moved by Michelle Zeamer, seconded by Beth Liberty to adjourn the meeting. Five in favor, none opposed, no abstentions, the meeting was adjourned.

Approved_____11/25/14_____

Town of Holliston Energy Analysis and Recommendations

By Howard Hager
Resident

Nov. 18, 2014

The task and goal

- **Task:** find the best way to save Holliston energy and cost.
- **Method:** Performed an analysis of entire municipality and schools based on past 12 months power bills and obvious energy use changes.
- **Goal**: recommend and implement reduction of energy cost dollars that are ***presently being budgeted and paid by town to utility every month (based on present rates which are slated to go up as much as 38-40% higher shortly***.

Best way to reduce cost of energy

- I. Get a better price on your Utility Charges
- II. Reduce the energy you use.
- III. Create your own energy

I. Better price for Utility Gas and Power

To get a better price you need to lock into a contract. Presently NStar has been doing a quarterly and can change it each quarter. There are rumors that the town is entering into a solar PPA agreement at a reduced energy charge (for the next two decades).

- As an experiment the fire house entered into a bid arrangement to get a better price for the next few years.

- The three bids brought the original price of $0.19370 + $0.05 delivery charges **Down to $0.11901 + delivery charges $0.05.** A **savings of $0.07469 per Kwh**.

This means an Annual estimated savings based on last years 63,146 kwh is at **a savings of $4,716.38 annually with 2 year lock in is $9,432.76**

Customer Name:	Holliston Fire Department-(NSTAR)
TDSP:	NSTAR-MA
# of Accts:	3
Creation Date:	5/27/2014
Pricing Type:	Fixed - Executable

unified energy

Holliston Fire Department-(NSTAR) - Electricity Cost Analysis

	Term #1	Term #2	Term #3	Term #4
Start Date	Jun-14	Jun-14	Jun-14	Jun-14
End Date	Jun-15	Dec-15	Jun-16	Jun-17
Term (Mnths)	12	18	24	36
Nominal kWhs	63,146	94,719	126,292	189,438

All Rates in $/kWh	Fixed Energy Rate Comparison			
	12	18	24	36
Constellation	$0.13100	-	$0.12850	$0.12910
Direct Energy	$0.12823	$0.11901	$0.12571	$0.12643
Liberty Power	$0.13553	-	$0.13330	$0.13839

Lowest Supplier	Direct Energy	Direct Energy	Direct Energy	Direct Energy
Lowest Price / Term	$0.12823	$0.11901	$0.12571	$0.12643

Savings Percentage	33.80%	38.56%	35.10%	34.73%
Annual Change ($)	$4,134	$4,717	$4,293	$4,248
Term Savings ($)	$4,134	$7,075	$8,586	$12,744
Change $ Monthly	$345	$393	$358	$354

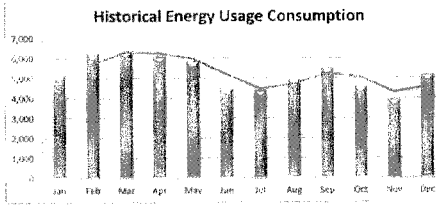
Price to Compare **$0.19370** ***Based on March Bill Copies Provided

Benchmark Notes and Recommendations

Current Energy Benchmarks - Rate Information:

Holliston Fire Department-(NSTAR) is currently with REP Energy, at a price of $0.1937 based on the March 2014 bill copies.

Month	Month Volume (kWh)
Jan	5,146
Feb	6,249
Mar	6,387
Apr	6,111
May	5,881
Jun	4,503
Jul	4,411
Aug	4,962
Sep	5,514
Oct	4,595
Nov	3,951
Dec	5,192
Total	63,146



Holliston Fire Department-(NSTAR) - Account List

Utility	Account Name	Service Address	City, State, Zip	Account Number	Rate Class	Notes
NSTAR	Holliston Fire Department	59 Central ST	Holliston, MA, 01746	26074391009	B2	-
NSTAR	Holliston Fire Department	South ST P15/7	Holliston, MA, 01746	26073551009	A0	-
NSTAR	Holliston Fire Department	455 Washington ST P60/53	Holliston, MA, 01746	26070531004	A9	-

**Pricing above is subject to market movement and credit.

Energy Management Electrical Utility

Note this bid is expired and shown as an example

All Rates in $/kWh	Fixed Energy Rate Comparison			
	12	18	24	36
ConEdison	$0.11410	$0.12060	$0.11300	$0.11410
Constellation	$0.11122	$0.11766	$0.11014	$0.11009
Hudson Energy	$0.11250	$0.11960	$0.11310	$0.11370
Liberty Power	$0.11237	$0.11964	$0.11297	$0.11481
Suez Energy	$0.11416	$0.12180	$0.11483	$0.11631

Lowest Supplier	Constellation	Constellation	Constellation	Constellation
Lowest Price / Term	$0.11122	$0.11766	$0.11014	$0.11009

Savings Percentage	4.29%	-1.25%	5.22%	5.27%
Annual Change ($)	$20,468	-$5,948	$24,899	$25,104
Term Savings ($)	$20,468	-$8,922	$49,797	$75,311
Change $ Monthly	$1,706	-$496	$2,075	$2,092

Price to Compare **$0.11621**

**Based on weighted average of previous 6 months bill copies

The Town of Holliston Municipal and School Buildings Energy Usage

- The town energy usage is spread over several buildings and outdoor lighting. Each building has its own meters for the utilities.
- We did an analysis of all the buildings and found many of the lights are older technology and wasting power and money.
- We took the power and natural gas bills and put them out for a competitive blind bid to see where the present supplier is.
- We found many of the invoices were not under a contract and were adjusted on a quarterly basis by the utility vendor.
- We found some buildings that were still paying high rates like 19 cents kwh.
- The utility bid results are shown on the later slides.

Energy Management Natural Gas

Note this bid is expired and shown as an example

	Term #1	Term #2	Term #3	Term #3	Term #4	Term #3
Start Date	Nov-14	Nov-14	Nov-14	Nov-14	Nov-14	Nov-14
End Date	Nov-15	Nov-16	Nov-17	Nov-15	Nov-16	Nov-17
Term (Mnths)	12	24	36	12	24	36
Nominal dths	8,293	16,586	24,879	8,293	16,586	24,879

All Rates in $/dth	Fixed Energy Rate			Index Energy Rate		
	12	24	36	12	24	36
Global Partners	$9.980	$9.820	$10.253	$6.752	$6.525	$5.950
Spark Energy	$9.900	$9.780	$10.010	$5.850	$5.630	$5.750
Sprague Energy	$5.290	$5.470	$5.700	$1.000	$1.090	$1.220

Lowest Supplier	Sprague Energy	Sprague Energy	Sprague Energy	Sprague Energy	Sprague Energy	Sprague Energy
Lowest Price / Term	$5.290	$5.470	$5.700	$1.000	$1.090	$1.220

Savings Percentage	23.67%	21.07%	17.75%	-	-	-
Annual Change ($)	$13,601	$12,108	$10,200	-	-	-
Term Savings ($)	$13,601	$24,216	$30,601	-	-	-
Change $ Monthly	$1,133	$1,009	$850	-	-	

Price to Compare **$6.930**

***Based on bill copies provided.

Attachment I

The savings for utility power/gas costs

- **Electric Power**

- The town of Holliston uses over 4,101,903 Kwh annually and is paying an average rate of $0.11621 Kwh (some are as high as $0.19 kwh and some as low as $0.09 Kwh). Using the bid process the lowest bid was at $0.11122 kwh. This equated to a savings annually of **$20,468** 94.29%) for a 12 month contract, **$49,797** (5.22%) for a 24 month contract and **$75,311** (5.27%) for a 36 month contract.

- We feel that changing the vendor by using the blind bid process can save money as shown and reduce the monthly bill by $1,706 (12 mo.), $2,075 (24 Mo.) and $2,095 (36 Mo.).
- It should be noted that in the press last week the news reported that the rates from N Star will go up this year by 5 or more percentage points.

- **Natural Gas**

- The town of Holliston uses natural gas and paid during the last year a price of $6.930 deca therm. Using the bid process the lowest bid came in at $5.290 deca therm for 12 months contract, $5.470 for 24 month contract and $5.700 for a 36 month contract. That equates to an annual savings **$13,601** (23.67%) for 12 month contract , **$24,216** (21.07%) for a 24 month contract and **$30,601** for a 36 month contract.

- We feel that changing the vendor by using the blind bid process can save money as shown and reduce the monthly bill by $1,133 (12 mo.), $1,009 (24 Mo.) and $850 (36 Mo.).

Savings from UE competitive bids

- Savings from **Electrical Utility** by switching vendors is:
- $20,468 a year with 12 month contract
- $49,797 a year with 24 months contract
- **$75,311** a year with 36 months contract

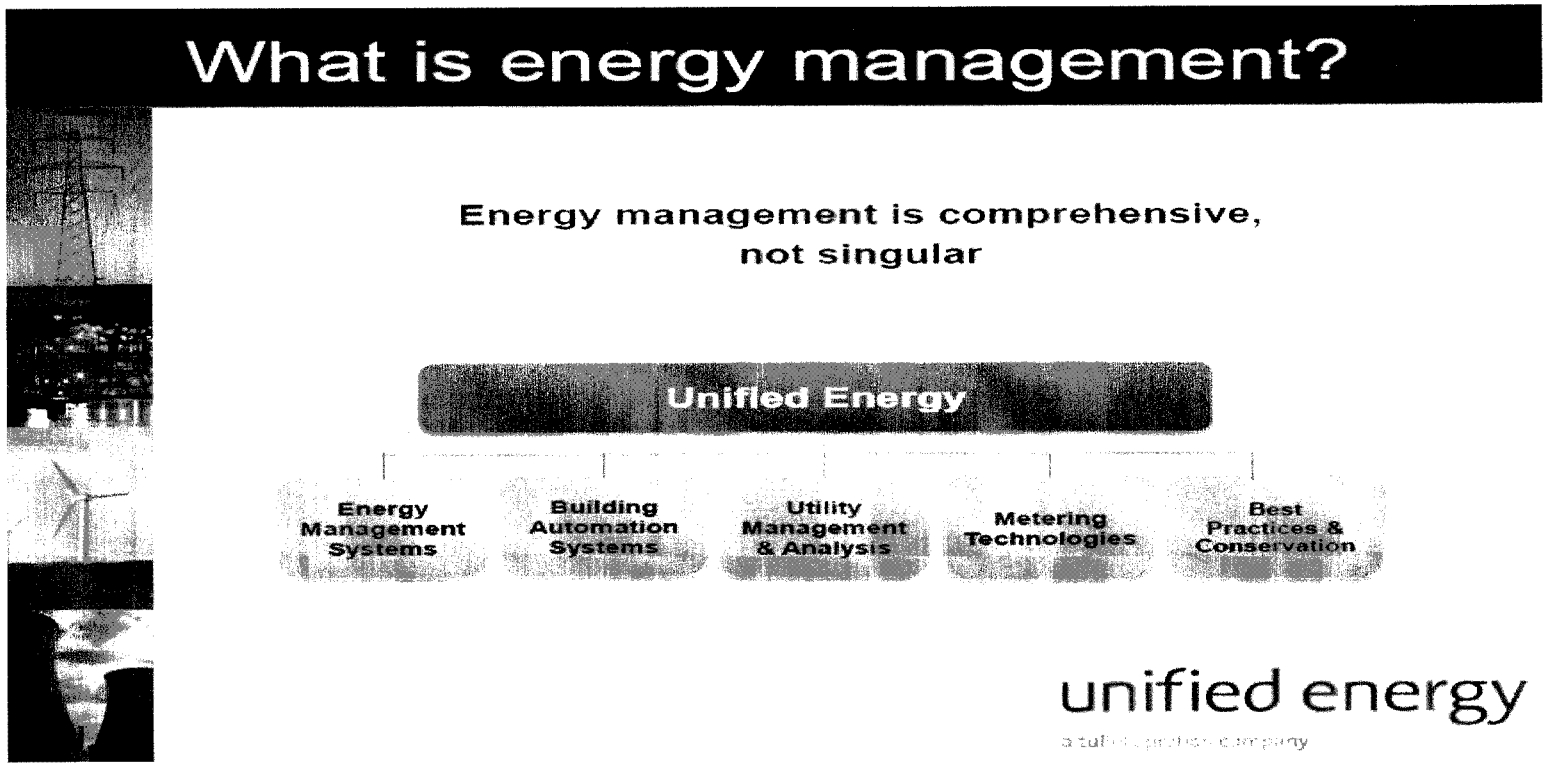
- Savings from **Natural Gas Utility** supplier by switching vendors is :
- $13,601 a year with 12 month contract
- $24,216 a year with 24 months contract
- **$30,601** a year with 36 months contract

- **Total possible savings:**
- 12 month contract **$34,069**
- 24 months contract **$74,013**
- 36 months contract **$105,912**

- **Note: This bid process cost the town nothing and gave access to many more suppliers than local aggregators can do.**

Energy Management Software

- Presently the town has no energy software tracking the contracts, costs or ongoing trends. The school has been tacking using a simple excel spread sheet to do the task.
- It would be a good idea to have such technology so it can allow better management of the energy usage in the town and take advantage of the markets pricing more uniformly.

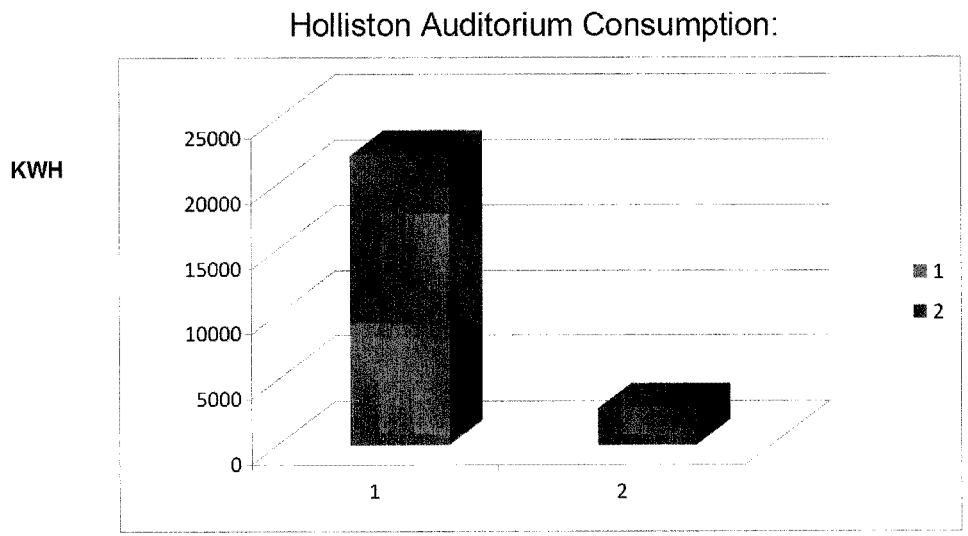


II. Energy Use Reduction

Lighting costs and associated areas of savings for town buildings and schools

- Changing to new lighting technology will give immediate savings from:
- Utility bills (save generation, transport, taxes and fees that are in utility bill)
- Bulb cost (spread savings by 5 years Plus)
- Cooling cost (Less heat less to cool)
- Maintenance cost (Longer life no replacement for 5 plus years)
- Haz mat cost (and this is also a town liability factor)

Example:Retrofit of Holliston High School Auditorium to LED



Consumption from **22,000 watts to 2,810 watts** based on bulb values with greater light output

Simple start of savings

change High School recessed Auditorium and Tubular lights

Savings just changing High School recessed Auditorium lights and tubular fluorescent lights SAVES $609,555 over 5 years from utility bill payments at today's rates.

Already changed recessed Auditorium Lights (72 fixtures)

Economic Overview	Annual Savings	Lifecycle Savings	Total Rebates	Net Project Cost	Payback Period	Annual Return On Investment
	$17,295	$331,687	$0	$18,930	1.09 Years	91.4%

Environmental Overview	kWh Conserved	Pounds of Coal Conserved	Pounds of CO_2 Conserved	Equivalent Acres of Forest Conserved	Passenger Vehicle Equivalent	Average Home Equivalent
	1,168,785	1,273,976	1,567,341	434	148	95

Additionally Change T8 tubular fluorescent to LED lights(8,961 Bulbs)

Economic Overview	Annual Savings	Lifecycle Savings	Total Rebates	Net Project Cost	Payback Period	Annual Return On Investment
	$104,616	$1,194,242	$0	$174,752	1.67 Years	59.9%

Environmental Overview	kWh Conserved	Pounds of Coal Conserved	Pounds of CO_2 Conserved	Equivalent Acres of Forest Conserved	Passenger Vehicle Equivalent	Average Home Equivalent
	4,095,750	4,464,368	5,492,401	1,523	519	334

Holliston School system Lighting Savings

From All schools doing recommended retrofits

HOLLISTON SCHOOLS

Replacement of lights with new technology — Savings from utility cutback

	bulbs qty	annual savings	5 year savings N star	5 year savings w cooling/maint /utility life cycle savings	cost	payback	ROI	utility cost total savings town (saving - cost)
liston Town Schools								
gh School								
1. Auditorium recessed lights	74	$25,721	$128,605	$411,390	$18,930	0.74 YRS	136.0%	$109,675
2. T8 Flourecent lights	2,769	$132,429	$662,145	$2,116,447	$138,450	1.05 yr	95.7%	$523,695
3. T5 flourescent lights	360	$27,431	$137,155	$438,387	$18,000	0.66 yr	152.4%	$119,155
4. other recessed lights	20	$1,013	$5,065	$16,195	$2,500	2.47 yrs	40.5%	$2,565
5. U T8 2x2	224	$5,848	$29,240	$93,457	$8,715	1.49 yr	67.1%	$20,525
6. sword flourecent lights	84	$1,435	$7,175	$22,926	$2,856	1.99 yr	50.2%	$4,319
7. outdoor lights parking lot on poles	8	$1,321	$6,605	$15,075	$1,584	1.2 yr	83.4%	$5,021
8. outdoor side building lights	45	$7,053	$35,265	$80,508	$8,910	1.26 yrs	79.2%	$26,355
9. outdoor front replace w solar	7	$852	$4,260	$13,610	$1,050	1.23 yr	81.1%	$3,210
Adams school								
1. Auditorium recessed lights	56	$16,304	$81,520	$260,566	$13,440	0.82 yr	121.3%	$68,080
2. other recessed lights in hallways	290	$14,693	$73,465	$234,823	$36,250	2.47 yr	40.5%	$37,215
3. T8 floursecent lights	1,218	$58,252	$291,260	$930,962	$60,900	1.05 yr	95.7%	$230,360
4. T5 flouresecnt lights	184	$112,313	$561,565	$1,794,949	$73,700	0.66 yr	152.4%	$487,865
5. outdoor lights parking lot on poles	20	$3,301	$16,505	$27,686	$3,960	1.2 yr	83.4%	$12,545
6. outdoor side building lights	20	$3,134	$15,670	$35,782	$3,960	1.26 yrs	79.2%	$11,710
7. U T8 2x2	249	$5,848	$29,240	$93,457	$8,715	1.49 yr	67.1%	$20,525
8. 2ft T8	434	$6,485	$32,425	$103,636	$11,718	1.81 yr	55.3%	$20,707
Placintino School								
1. T8 flouresecnt lights	1,474	$70,495	$352,475	$1,126,632	$73,700	1.05 yr	95.7%	$278,775
2. recessed lights	260	$13,173	$65,865	$210,531	$32,500	2.47 yr	40.5%	$33,365
3. outdoor lights parking lot on poles	36	$5,942	$29,710	$67,835	$7,128	1.2 yr	83.4%	$22,582
4. outdoor side building lights	20	$3,134	$15,670	$35,782	$3,960	1.26 yr	79.2%	$11,710
5. U T8 2x2	212	$4,979	$24,895	$79,570	$7,420	1.49 yr	67.1%	$17,475
6. dome 6 lites per (swords)	90	$3,620	$18,100	$57,861	$7,204	1.99 YR	50.2%	$10,896
		$524,776	**$2,623,880**	**$8,268,067**	**$545,550**	**1.05 yr**	**95.7%**	**$2,078,330**
		annual savings	**5 year savings N star**	**5 year savings w cooling/maint/utility life cycle savings**	**cost**	**payback**	**ROI**	**total savings town (saving - cost)**
	8,154 bulbs							

Holliston School system Lighting Savings

The school has the most lights of all the town's energy users with over 8,000 bulbs. We install the Auditoriums and saved energy with simple bulb changes going from 300 watt bulbs to 28-50 watt bulbs. The tubular t8 and T5 bulbs were also candidates for change to save 50% energy from each bulb.

As can be seen the annual utility bill savings (we assumed 5 days at 12 hours a day) is **$524,776**. This is hard cash that would be given to the utility. With changing the bulbs to LED technology indoors we save for the 5 year warranted life of the bulb **$2,623,880.** The cost of the bulbs are $545,550. So that is a **savings after paying for the bulb is *$2,078,330*. This is the real utility savings after cost of bulbs.**

If we add the savings in cooling during the 8 month season and not having to replace the bulbs yearly we save in 5 years $8,268,067. Any rebates are not in these numbers.

$524,776	$2,623,880	$8,268,067	$545,550	1.05 yr	95.7%	$2,078,330
annual savings	5 year savings N star	5 year savings w	cost	payback	ROI	total savings town
		cooling/maint/utility				(saving - cost)

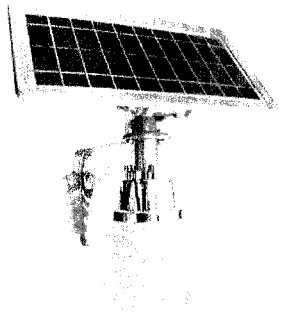
Holliston School system Lighting Savings (cont'd)

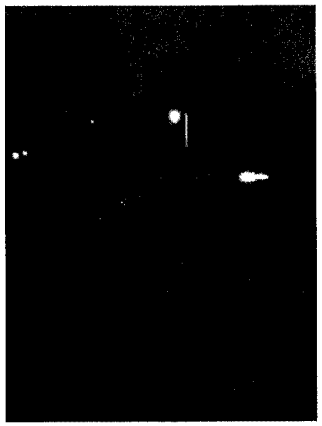
- After an analysis of the High School, Adams School, Plactintino school and the sports fields we found several areas that can improve the cost reduction by simply replacing light bulbs. The old technology in place is wasting at least 50% of the energy. The new bulbs can be purchased from the power reduction savings and because of the longer life of the new products the schools will be saving money for at least 4 additional years after payback and thereafter as bulb life can be 10-15 years.
- The two school auditoriums (Adams and High School) have 300 watt dimmable bulbs in the ceilings. Replacing by bulbs using almost 10 times less power reduces the utility bill and air conditioning heat load. Also these bulbs will not need any replacement for at least 5 years.
- Additionally the outdoor lighting has high energy output bulbs which can be replaced with ones using 50% or less power. In addition several outside lights have wiring problems.
- Replacing wall packs and the 7 high school front parking lamps (several have corroded wiring and would have a high cost to fix) with solar powered lights would save 100% from utility costs.
- The outdoor field lights are not good payback candidates as they are used minimally during the year and it would take a decade for payback.

Suggested lighting solutions

- The auditorium of the high school bulbs will be replaced with lower power ones, but with equal illumination, LED bulbs will save on utility costs annually. When cooling and maintence are added they saved more over the warranted 5 years. Much of the school does not have AC so that effect will be minimal there.
- The schools fluorescent bulbs and CFL bulbs are the next biggest power drain. The recessed lighting uses CFL lamps and when replaced by LED recessed cans will save annually over the five year warranty time frame including cooling and maintenance. In addition, ridding the school of Haz Mat material like the CFL and fluorescent bulbs has a cost that is not there with the LED bulbs.
- Outdoors the high school has lamps that can be replaced with solar powered ones at a low cost. They will run off grid ($0 power bill)
- Waiting until bulbs burn out wastes money. Once the new LED is installed the **savings starts immediately**.

Additional technology that can save money
Small solar outdoor lighting





Installed and running on test are two examples of solar powered lights located at the front of the school. They run all night and charge up all day , even on rainy days.

These are off the power grid and run on solar power that charges a battery for night time light. They hold several days' charge for low light days and take 6 hours to get fully charged

Holliston town buildings lighting

- Much of the lighting used throughout the town buildings are older technology and many bulbs have Haz Mat materials within them. Also efficient use of lighting by computer control and space occupancy sensors is very limited or not present.
- In several areas the security lighting is either on with a timer or turned off (or burned out). No solar powered lighting is used.
- There is no data collection of energy usage except what is used by the schools to track the utility bills.
- A lack of air conditioning systems in general and old leaky windows in some buildings lead to discomfort and inefficiencies. The heat from lights is mitigated by turning them off which defeats their purpose in many situations.
- Not having lighting at night can be a safety hazard and town liability.

Holliston building Lighting Savings

The estimated savings from retrofitting the Holliston municipal buildings as seen in the chart below saves $75,793 annually. Over the warranty period of 5 years the savings is from the Utility is $1,054,90 if the town did nothing but keep paying the bill from the same technology it has installed. The payback is in about a year's time and when cooling and maintenance is added minus the cost of the material the savings from 5 years is $305,927 from the utility payments.

Not included are the costs associated with the Haz mat material disposal and any liability or danger it poses from the fluorescent, HID and CFL lights. Also we did not include the sports fields as they are used less regularly and as are some of the other buildings.

$75,793	$378,965	$1,054,905	$73,038	1.05 yr	95.7%	$305,927
annual savings	5 year savings N star	5 year savings w	cost	payback	ROI	total savings town
		cooling/maint/utility				(saving - cost)

1,696 bulbs

life cycle savings

Savings Town and School Combined

- Savings for the town present and future energy budgets from:
- ***Town energy savings***
- ***Town lighting savings***
- ***Schools energy saved***
- ***School lighting savings***
- ***No Haz Mat disposal costs or liability***
- ***Rebates for lights is additional savings (rebates not included in calculations)***

- **The town and school lights can be funded from the annual savings of the new lights power bill reduction. The new lights reduce the annual expense from the already approved and budgeted power costs, replacement bulb costs and haz mat disposal costs. Additional savings on cooling and labor to replace burned out bulbs.** *5 Year savings **$2.38** million dollars*

Savings from lighting retrofit for town

SAVINGS	Annual Savings	5 year Savings	cost	total savings for town
School	$524,776	$2,623,880	$545,550	$2,078,330
Municipal Buildings	$75,793	$378,965	$73,038	$305,927

Total from retrofit	$600,569	$3,002,845	$618,588	$2,384,257

Let's look at what we have so far

- **Energy management**
- We have taken the time to arrange several sources to bid on gas and electric for the towns needs. We have seen some problems that the town has in managing this correctly. In general the town has done well but can do better.

- **Lighting**
- The lighting products proposed in this are reliable products from several vendors. They are cost effective and have a 5 year full warranty. (unlike others that say 4-5 years but in small print use "at 3 hours a day" as their guide. Products suggested are 24 x7 x365 x 5 years.
- We provide on going support and as energy advisors to the town and can help ongoing to advise on new technology and solve problems

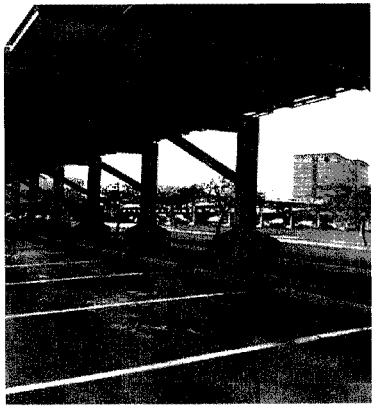
- **Generation**
- We have ways that the town can generate its own power and have the ability if it wants to sell the excess power at a rate it chooses. Using what is called wheeling the town can create a nice cash flow. There are towns in MA doing this for years. The Fire house can be off the grid in the same way that the Hopkinton fire house is and be saving the utility costs every month.

- **This is a complex area but here are some points that can be done by the town.**

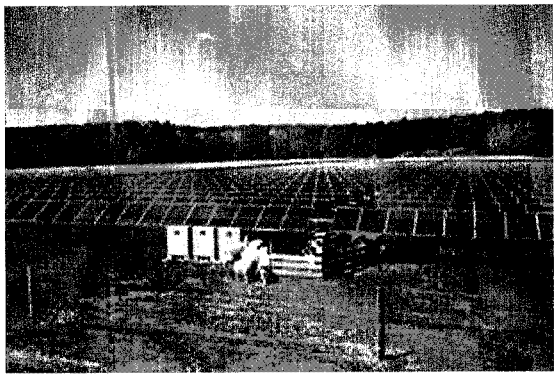
III. Create your own power

- The town is allowed to generate power and use it for its own internal use as well as being able to sell excess power to the utilities, individuals and businesses. This is confirmed by the Dept of Energy Resource Director. There are several town's that do this but usually have big power plants.
- Holliston has a great resource "a capped Landfill that is over 20 years old. The former Marshal street dump. It has been cleared and is suitable to install solar panels on it to generate mega watts of clean power. Usually a company wants to come in and lease such a space, set up the solar farm, run it and have power to sell to the town at a low rate.
- Such a scheme gives the solar company the big bite of the profits and the town little. If the town is then asked for tax relief it gets even less.
- There is a way that the town can own such a generation system on its site with no upfront out of pocket costs. The idea is that the Solar Renewable energy credits (SREC's) can pay for the equipment and install. SREC's are at over $300/mw now and when we did an analysis when they were at $150. We found a lender could buy the equipment and be paid from the SREC's in a 6 or less year time frame. The SREC has a Ten year life so the town collects 4 years in cash. The equipment has a 20 year life. So the town in that calculation would pay $0.9 /kwh for power (far below what they pay now) for 6 years. Afterwards the town pays zero until the end of equipment life. However, <u>the town may have passed that window.</u>
- If the solar equipment were built in a larger format it would have excess power that it can be sold at a profit to local businesses and residents at a reduced rate.

Typical solar power sites

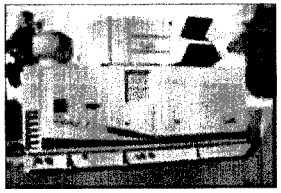


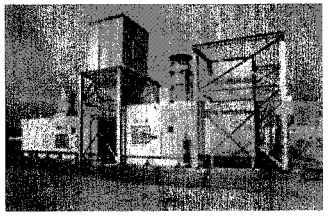
Car shade solar power



Typical solar ground installation

Other Generation of Power possibilities





Another way to make low cost power is from the CHP (combined heat & power) Gen Sets.

There are several vendors that have on site generator systems that work 24x7 producing power from Natural gas or a renewable fuel stock.

They range from jet engines to converted piston diesel engines and are built into 40 ft steel containers.

They have noise reduction parts so it is quiet and can be used in a residential neighborhood

These systems can be purchased, leased or power from them only purchased. The later means a 10-20 year Purchase Power Agreement (PPA) needs to be signed. Excess power can be Net Metered back to the Utility. These systems can produce from 160 kwh to 80 MW of clean power. They also can have hot water heating and chilling options so they are useful for winter or summer months.

This type system can power the schools or town. When situated on those sites they are self contained power system with remote service and controls.

They also qualify for certain REC incentives as additional income.

Look at surrounding towns

- The solar installations on Hopkinton's High School, Middle School, Police Station, and Fire Department have helped them satisfy the need to compile energy use of all municipal buildings and pledge to have them reduce energy consumption by 20%

- Hopkinton has solar on the schools, police and fire departments.

- There are grants and incentives from the State government for green communities. We met with the person who does them for city of Quincy and she has pulled in enough money to reduce the cost of doing energy saving greatly.

- On Long Island the town of Mastic/Shirley has had 3.8 Mw Gen Set's for over ten years. It provides electric power at low cost, heat in the winter and chiller for the summer. In addition, they sell during the summer the excess power when the school is closed to the Utility. They need it to keep brown outs from residential and business air-conditioning to not occur.

In closing

The financial savings for the next five years and beyond can be achieved in the areas as shown on the slides presented.

Just the <u>$2.38 million over 5 years</u> in lighting changes alone is it worth the town doing it?

KEY IS: If nothing is done the Town is paying N Star every month and year the same money that could have gone to pay for lighting changes. No new money needed just reallocate.

Pay <u>Nstar or save the taxpayers money</u> over the next 5-15 years as a result of using the same money to improve the lighting. Once it is paid off there is less a utility charge, less replacing bulbs.

This presentation only touches briefly what can be done to save the town the very same money it has been paying the utility company. Pay Nstar or cut your cost?

Thank You for allowing this to be presented.

This Purpose permits an executive session to investigate charges of criminal misconduct and to consider the filing of criminal complaints. Thus, it primarily involves discussions that would precede the formal criminal process in court. Purpose 1 is related, in that it permits an executive session to discuss certain complaints or charges, which may include criminal complaints or charges, but only those that have already been brought. Also, unlike Purpose 5, Purpose 1 confers certain rights of participation on the individual involved, as well as the right for the individual to insist that the discussion occur in open session. To the limited extent that there is overlap between Purposes 1 and 5, a public body has discretion to choose which Purpose to invoke when going into executive session.

6. To consider the purchase, exchange, lease or value of real property if the chair declares that an open meeting may have a detrimental effect on the negotiating position of the public body;

Under this Purpose, as with the collective bargaining and litigation Purpose, an executive session may only be held where an open meeting may have a detrimental impact on the body's negotiating position with a third party. At the time that the executive session is proposed and voted on, the chair must state on the record that having the discussion in an open session may be detrimental to the public body's negotiating position.

7. To comply with, or act under the authority of, any general or special law or federal grant-in-aid requirements;

There may be provisions in state statutes or federal grants that require or specifically allow a public body to consider a particular issue in a closed session. Before entering executive session under this purpose, the public body must cite the specific law or federal grant-in-aid requirement that necessitates confidentiality.

8. To consider or interview applicants for employment or appointment by a preliminary screening committee if the chair declares that an open meeting will have a detrimental effect in obtaining qualified applicants; provided, however, that this clause shall not apply to any meeting, including meetings of a preliminary screening committee, to consider and interview applicants who have passed a prior preliminary screening;

This Purpose permits a hiring subcommittee of a public body or a preliminary screening committee to conduct the initial screening process in executive session. This Purpose does not apply to any stage in the hiring process after the screening committee or subcommittee votes to recommend candidates to its parent body, however it may include multiple rounds of interviews by the screening committee aimed at narrowing the group of applicants down to finalists. At the time that the executive session is proposed and voted on, the chair must state on the record that having the discussion in an open session will be detrimental to the public body's ability to attract qualified applicants for the position. If the public body opts to convene a preliminary screening committee, the committee must contain fewer than a quorum of the members of the parent public body. The committee may also contain members who are not members of the parent public body.

Note that a public body is not required to create a preliminary screening committee to consider or interview applicants. However, if the body chooses to conduct the review of applicants itself, it may not do so in executive session.

9. To meet or confer with a mediator, as defined in section 23C of chapter 233, with respect to any litigation or decision on any public business within its jurisdiction involving another party, group or entity, provided that:

(i) any decision to participate in mediation shall be made in an open session and the parties, issues involved and purpose of the mediation shall be disclosed; and

(ii) no action shall be taken by any public body with respect to those issues which are the subject of the mediation without deliberation and approval for such action at an open session.

10. To discuss trade secrets or confidential, competitively-sensitive or other proprietary information that has been provided under the following circumstances:

a. in the course of activities conducted by a governmental body as an energy supplier under a license granted by the department of public utilities pursuant to G.L. c. 164 § 1F;

b. in the course of activities conducted as a municipal aggregator under G.L. c. 164 § 134; or

c. in the course of activities conducted by a cooperative consisting of governmental entities organized pursuant to G.L. c. 164 § 136; and

d. when such governmental body, municipal aggregator or cooperative determines that such disclosure will adversely affect its ability to conduct business in relation to other entities making, selling or distributing electric power and energy.

To Top

May a member of the public body participate remotely?

The Attorney General's Regulations, 940 CMR 29.10, permit remote participation in certain circumstances. However, the Attorney General strongly encourages members of public bodies to physically attend meetings whenever possible. Members of public bodies have a responsibility to ensure that remote participation in meetings is not used in a way that would defeat the purposes of the Open Meeting Law, namely promoting transparency with regard to deliberations and decisions on which public policy is based.

To Top

How can the practice of remote participation be adopted?

Remote participation may be used during a meeting of a public body if it has first been adopted by the chief executive officer of the municipality for local public bodies, the county commissioners for county public bodies, or by a majority vote of the public body for retirement boards, district, regional and state public bodies. The chief

executive officer may be the board of selectmen, the city council, or the mayor, depending on the municipality. See G.L. c. 4, § 7.

If the chief executive officer in a municipality authorizes remote participation, that authorization must apply to all public bodies in the municipality. 940 CMR 29.10(2)(a). However, the chief executive officer determines the amount and source of payment for any costs associated with remote participation, and may decide to fund the practice only for certain public bodies. See 940 CMR 29.10(6)(e). In addition, the chief executive officer can authorize public bodies in that municipality to "opt out" of the practice altogether. See 940 CMR 29.10(8).

To Top

What are the permissible reasons for remote participation?

Once remote participation is adopted, any member of a public body may participate remotely if the chair or, in the chair's absence, the person chairing the meeting, determines that one of the following factors makes the member's physical attendance unreasonably difficult:

- Personal illness;
- Personal disability;
- Emergency;
- Military service; or
- Geographic distance.

To Top

What are the acceptable means of remote participation?

Acceptable means of remote participation include telephone, internet, or satellite enabled audio or video conferencing, or any other technology that enables the remote participant and all persons present at the meeting location to be clearly audible to one another. Accommodations must be made for any public body member who requires TTY service, video relay service, or other form of adaptive telecommunications. Text messaging, instant messaging, email and web chat without audio are *not* acceptable methods of remote participation.

To Top

What are the minimum requirements for remote participation?

Any public body using remote participation during a meeting must ensure that the following minimum requirements are met:

- A quorum of the body, including the chair or, in the chair's absence, the person chairing the meeting, must be physically present at the meeting location;
- Members of a public body who participate remotely and all persons preset at the meeting location must be clearly audible to each other; and
- All votes taken during a meeting in which a member participates remotely must be by roll call vote.

To Top

What procedures must be followed if remote participation is used at a meeting?

At the start of any meeting during which a member of a public body will participate remotely, the chair must announce the name of any member who is participating remotely and which of the five reasons listed above requires that member's remote participation. The chair's statement does not need to contain any detail about the reason for the member's remote participation other than the section of the regulation that justifies it. This information must also be recorded in the meeting minutes.

Members of public bodies who participate remotely may vote, and shall not be deemed absent for purposes of G.L. c. 39, § 23D. In addition, members who participate remotely may participate in executive sessions, but must state at the start of any such session that no other person is present and/or able to hear the discussion at the remote location, unless the public body has approved the presence of that individual.

If technical difficulties arise as a result of utilizing remote participation, the chair or, in the chair's absence, person chairing the meeting may decide how to address the situation. Public bodies are encouraged, whenever possible, to suspend discussion while reasonable efforts are made to correct any problem that interferes with a remote participant's ability to hear or be heard clearly by all persons present at the meeting location. If a remote participant is disconnected from the meeting, the minutes must note that fact and the time at which the disconnection occurred.

To Top

What public participation in meetings must be allowed?

Under the Open Meeting Law, the public is permitted to attend meetings of public bodies but is excluded from an executive session that is called for a valid purpose listed in the law. Any member of the public also has a right to make an audio or video recording of an open session of a public meeting. A member of the public who wishes to record a meeting must first notify the chair and must comply with reasonable requirements regarding audio or video equipment established by the chair so as not to interfere with the meeting. The chair is required to inform other attendees of any such recording at the beginning of the meeting.