

**ENERGY COMMITTEE**  
**TOWN OF SOUTH WINDSOR**

**Minutes**

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**December 15, 2015**

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**Madden Room – South Windsor Town Hall**

**1. Call Meeting to Order**

The meeting was called to order at 4:34 p.m.

**2. Roll Call**

Members Present: Larry Brown, Resident  
Hank Cullinane, Resident  
Mike Gantick, Director of Public Works  
Richard Stahr, Board of Education  
Councilor Janice Snyder, Town Council  
Sherman Tarr, Resident  
Stephen Wagner, Resident

Members Absent: Richard Grigorian, Resident  
Patrick Hankard, Board of Education  
Councilor Edward Havens, Town Council  
Athena Loukellis, Resident  
Deputy Mayor Carolyn Mirek, Town Council

Others Present: Jim Daylor, Ameresco

**4. Old Business**

None

**5. New Business**

**A. LED Streetlights update**

- a. Business Case from Ameresco
- b. Streetlights on State Roads

Mr. Wagner reviewed the process that the Energy Committee would have to go through in order to switch the Town's street lights over to LED. The savings over a 20 year period would be approximately \$4,000,000. The Town would buy street lights from Eversource and then Ameresco would be paid to come in and replace all of the street lights with LED streetlights. Mr. Wagner explained what would be replaced. The price

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ITEM:

5. A. (Continued)

estimated to buy the lights from Eversource is around \$800,000. It was stated that South Windsor would pay more for this service than surrounding Towns because of the mix of lights in terms of age, the type of light, and the number of underground fixtures. The Town would be able to do this project in phases, but would need to have all of the lights bought within five years. The Town could consider abandoning the lights on State roads. The State has been informed of the Town's consideration of this option but has not responded to a letter that was sent. This issue should be resolved prior to breaking the project down in phases.

Mr. Gantick explained that South Windsor is the first Town to proposed abandoning all of the street lights on State roads, and therefore the State is going to work on developing a policy.

Committee members discussed the possibility of South Windsor abandoning any street lights in Town that are 14 years old or older. The taxpayers of South Windsor have been paying for the lights several times over. On the State roads, the Town has the option for premature abandonment. No one from Eversource or the State can explain how the lights on the State roads were put where they are located. The key is to try to reduce costs, but this would be a Town Council decision.

Answering questions from the Committee, Mr. Gantick explained that the Town spends approximately \$450,000 per year for electrical costs for street lights. Eversource pays for them to be repaired.

Mr. Wagner informed the Committee that Ameresco did an audit of all the street lights in Town. There were lights that the Town was not being billed for and there were lights that were not found, but the Town is being billed for. Eversource will confirm the location where lights were not found. At this time, there are 49 lights that the Town has been charged for.

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ITEM:

5. A. (Continued)

Mr. Jim Daylor from Ameresco stated that Eversource provided the Town with an inventory of 2,414 street lights which the Town is paying for on a monthly basis. Ameresco went into the field and did an inventory of the location, age, condition and other demographic information for every fixture in South Windsor and created a catalog. This information was placed into GIS. Eversource's inventory and Ameresco's inventory do not match. South Windsor is buying 2,400 lights from Eversource for \$800,000 which is approximately \$335.00 per light and is more expensive than surrounding Towns. It was explained that South Windsor is paying a larger value for the lights because of the quantity of decorative lighting, the age and condition, which means that South Windsor has newer infrastructure. Mr. Daylor explained to the Committee that unless South Windsor buys the pole, the head can not be changed. Eversource has to maintain anything that has a wire on it. Mr. Daylor felt that there is no room for negotiations with Eversource. PURA will agree that Eversource is following the rules.

Committee members discussed the option of South Windsor abandoning all of the State road street lights. Doing this would bring the cost of replacement under \$1,500,000. If the State feels there are lights that are necessary, they can pay for the electricity for them. Mr. Brown added that Eversource will be replacing their street lights with LED's over the next five years.

Mr. Wagner felt that the Town should abandon the street lights but there may be an early abandonment charge.

Mr. Gantick questioned if the Town would qualify for some cost breaks? Mr. Daylor explained that although the Town will not see a cost break for the mid range quality fixtures, as what is being proposed for South Windsor, more features are now available with this equipment. It is the Town's discretion to go to a lower model in order to save money. The features being offered are quick connects from the poles to the light and seven pin connector rather than a three pin connector.

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**ITEM:**

**5. A. (Continued)**

Mr. Wagner suggested that this project be done in phases to keep each phase under \$1,500,000 so that this project will not have to go to referendum. A presentation of this project should be given to the Council.

Mr. Gantick informed the Committee that Bank of America has a program which offers a 1% financing. Mr. Daylor added that they offer a low buy down program through the State of Connecticut, (PURA). Committee members reviewed the pro-forma, as shown in attached, **Exhibit A**.

Mr. Wagner stated that the Energy Committee could recommend to the Council to abandon the lights on the State roads. The Energy Committee can pursue the 20 lights that could not be found and maybe get reimbursed for those.

Councilor Snyder requested that a fact sheet be drafted.

**3. Next Meeting**

The next meeting is scheduled for Tuesday, January 5, 2016 at 4:30 p.m. in the Madden Room.

**2. Approval of Minutes (November 17, 2015)**

Mr. Brown made a motion to approve the amended minutes. Mr. Cullinane seconded the motion; and the minutes were approved 5-0 with Council Snyder and Mr. Stahr abstaining.

**5. New Business (Continued)**

**C. Solar**

**a. Virtual Net Metering (VNM) opportunities**

Mr. Wagner explained that the idea of doing a Virtual Net Metering project would be to do a project in another Town. The Council requested the Town Manager to figure out how much time staff would need to invest in the RFP and to do the project.

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**ITEM:**

**5. C. (Continued)**

b. Solar carports for police station and schools

Mr. Wagner explained that carports could be looked at for the Police Department and the schools. Another project that could be reviewed is to merge solar with a roof replacement.


Mr. Stahr suggested that at the new Orchard Hill School a solar canopy be considered for over the front entrance of the school.

Committee members discussed the ability to incorporate solar on the roof of the new Orchard Hill School. The Committee requested that Mr. Stahr find out if the Board of Education considered this and if they did, the Committee would like to know why they decided against solar on the roof. The Committee also stated that they would like to look at roof replacement projects that are on the Capital Projects list.

**6. Adjournment**

At 6:02 p.m. Mr. Brown made a motion to adjourn the meeting. Mr. Stahr seconded the motion; and it was approved, unanimously.

Respectfully submitted,

  
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Deborah W. Reid  
Clerk of the Council



# Town of South Windsor LED Street Lighting Conversion - Pro-Forma for Town Lights ONLY

<b>Initial Project Costs:</b>	
Purchase of All Street Lights - 2,443 lights	\$ 808,790
Cost of State Road and other Excluded Lights - 322 lights	\$ 70,206
Purchase of Town ONLY Street Lights - 2,118 lights	\$ 739,584
Project Planning Phase	\$ 72,465
Implementation costs	\$ 962,721
<b>Total Initial Project Costs</b>	<b>\$ 1,853,770</b>
<b>Estimated Incentives</b>	<b>\$ 213,746</b>
<b>Project Planning paid under audit contract</b>	<b>\$ 72,465</b>
<b>Net Project Costs to be Financed</b>	<b>\$ 1,447,559</b>

2,082 lights included that matched inventory  
 36 additional lights found during audit  
 2,118 total lights included in project  
 308 lights found on state roads  
 18 lights that couldn't be located  
 6 lights that town believes don't belong to the town  
 332 total lights excluded from project  
 2,450 total lights found during audit  
 2,414 total lights from Eversource 12/23/2014 inventory  
 2,443 total lights from Eversource 4/30/2015 Net Book Value

<b>Financial Assumptions:</b>	
Term of Project (yrs)	10.0 yrs
Term of Financing (yrs)	10.0 yrs
Estimated Financing Rate	2.00%
Payments per year (frequency)	4
Discount Rate	2.00%
Average Energy escalation rate (annual)	3.00%

Project Simple Payback 4.20

Pro-Forma		Year											Totals
	Initial Values	1	2	3	4	5	6	7	8	9	10	11	
1 Existing Street Lighting Costs - All <sup>1</sup>	\$ 423,485	\$ 436,190	\$ 448,275	\$ 462,753	\$ 478,638	\$ 490,935	\$ 504,663	\$ 520,833	\$ 536,458	\$ 552,552	\$ 568,128	\$ 586,202	\$ 5,000,424
2 Existing Street Lighting Costs - State Roads and Others <sup>2</sup>	\$ 78,942	\$ 79,147	\$ 81,522	\$ 83,967	\$ 86,486	\$ 89,081	\$ 91,754	\$ 94,506	\$ 97,341	\$ 100,262	\$ 103,269	\$ 106,367	\$ 907,396
3 Existing Street Lighting Costs - Town Only (1-2)	\$ 346,543	\$ 357,042	\$ 367,753	\$ 378,786	\$ 390,150	\$ 401,854	\$ 413,910	\$ 426,327	\$ 439,117	\$ 452,290	\$ 465,859	\$ 479,835	\$ 4,093,028
4 Proposed Street Lighting Costs - Town Only <sup>3</sup>	\$ 71,967	\$ 74,126	\$ 76,350	\$ 78,640	\$ 81,000	\$ 83,430	\$ 85,933	\$ 88,510	\$ 91,166	\$ 93,901	\$ 96,718	\$ 99,619	\$ 848,773
5 Annual Town ONLY Street Lighting Cost Savings - (3-4)	\$ 274,676	\$ 282,916	\$ 291,403	\$ 300,146	\$ 309,150	\$ 318,424	\$ 327,977	\$ 337,817	\$ 347,951	\$ 358,390	\$ 369,141	\$ 379,676	\$ 3,245,315
6 Total Annual Street Lighting Cost Savings - (1-4)	\$ 351,518	\$ 362,063	\$ 372,928	\$ 384,113	\$ 395,638	\$ 407,506	\$ 419,731	\$ 432,323	\$ 445,292	\$ 458,651	\$ 472,411	\$ 486,563	\$ 4,150,651
7 Payments for financing equipment		\$ 165,610	\$ 165,610	\$ 165,610	\$ 165,610	\$ 165,610	\$ 165,610	\$ 165,610	\$ 165,610	\$ 165,610	\$ 165,610	\$ 165,610	\$ 1,856,095
8 Reduction in Tax Revenue		\$ 29,553	\$ 29,553	\$ 29,553	\$ 29,553	\$ 29,553	\$ 29,553	\$ 29,553	\$ 29,553	\$ 29,553	\$ 29,553	\$ 29,553	\$ 296,532
9 Increase in Insurance		\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 100,000
10 Net Annual Benefits (6-7-8-9)	\$ 2,099,024	\$ 1,561,901	\$ 167,763	\$ 178,580	\$ 190,474	\$ 202,343	\$ 214,569	\$ 227,160	\$ 240,130	\$ 253,488	\$ 267,246	\$ 247,030	\$ 2,099,024
11 Cumulative cash flow	\$ 2,099,024	\$ 1,561,901	\$ 324,663	\$ 503,614	\$ 694,087	\$ 895,430	\$ 1,110,988	\$ 1,338,138	\$ 1,578,289	\$ 1,831,776	\$ 2,099,024	\$ 2,346,054	
12 Net Present Value of cash flow	\$ 1,867,517												
13 Interest Rate	2.00%												
14 Discount Rate	2.00%												

Notes:

- 1 This Proforma Cash Flow reflects an estimated financing rate of 2%. The actual rate will increase or decrease based on market conditions and customer credit rating at the time of funding.
- 2 Savings are based on current utility rate structures and usage information provided for purposes of this project.
- 3 Total Existing Street Lighting Costs are based on the Eversource Inventory dated 12/23/2014. The 36 additional lights found during the audit were added to this inventory and their annual costs were estimated. The rates in the inventory were updated to the current Eversource Rate: 116.
- 4 Existing State Road and Other Street Lighting Costs are based on the 308 state road lights found during the audit as well as the 24 additional lights the Town believes don't belong to the Town.
- 5 Proposed Street Lighting Costs are based on the reduction in energy for the 2,118 lights included in the project and switching them from Rate 116 to Rate 117. These costs also include an annual maintenance contract budget for the new lights.
- 6 Total Annual Street Lighting Cost Savings include the savings associated with replacing the existing Town owned lights as well as the savings associated with discontinuing the State Owned and other lights.
- 7 Financing payments are based on equal payments over the life of the loan assuming quarterly payments in arrears.
- 8 Reduction in Tax Revenue is the estimated tax revenue loss due to the Town taking ownership of the street lights from Eversource.
- 9 Increase in Insurance is the estimated cost for the Town to insure the Town owned street lights and poles.