

Town of Hartwick LED Street Light Proposal

Project Summary

NYPA appreciates the opportunity to provide Town of Hartwick with a proposal for a turn-key project to upgrade the existing street light system to energy efficient, long lasting LED street lights. NYPA will partner with you to design and implement this important project. As part of our value proposition, we may be able to assist with project financing as NYPA offers low cost financing to customers who upgrade their lighting system. Through this project, the Town of Hartwick will upgrade all of its street lights; 47 in total. The annual savings generated by this project for your taxpayers is: \$4,210 in energy costs.

Scope of Services

NYPA proposes to provide the following services:

- Validating the accuracy of the lighting inventory and providing updates to lighting registry.
- Where needed, offering guidance on the purchase of lighting equipment from the utility.
- Providing engineering design by a licensed PE firm; buying LED lighting equipment and selecting an installation contractor in accordance with New York State procurement guidelines. The LED equipment purchased will include photocells, wireless control system and shielding per customer request.
- Providing project and construction management along with field supervision and project closeout.
- Overseeing hazardous waste management and disposal in accordance with environmental law.

Benefits

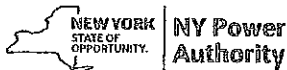
- \$1,106 per year in electricity cost savings
- Simple payback of 7.97 years
- Annual positive cash flow of \$321
- Improved light quality and reliability. LED lights are night sky compliant
- Reduced maintenance costs. LED lights have a life expectancy in excess of 15 years. Since LED street light bulbs last much longer, fewer replacements of failed bulbs are needed freeing up staff for other projects

Financials

- The cost to develop and implement this project on a full turn-key basis is \$37,087
- The Savings to Investment ratio is 2.3
- The Net Present Value for this infrastructure investment is \$40,819
- The Internal Rate of Return is 27.5%
- Cumulative Cash Flow is \$99,856

Next Steps

- Execute Energy Services Program Master Contract and Design Authorization to Proceed.
- Schedule a project kickoff meeting with NYPA and our implementation contractor.



Customer Energy Solutions

Total Project Summary
New York Power Authority - Energy Efficiency Program
Town of Hartwick

February 18, 2019

NG Owned:	0		Material	Labor
Customer Owned:	0	Construction Costs:	\$2,990.00	\$3,525.00
NYSEG Owned:	47	Fuses (if required):	\$2,115.00	\$0.00
Total Fixtures:	47	Wiring:	\$0.00	\$1,175.00
		CityTouch:	\$5,405.00	\$0.00
		Allowance:	\$0.00	\$352.50
(2% of labor cost)		Payment and Performance Bonds:	\$0.00	\$101.05
		Totals:	\$10,510.00	\$5,153.55
		Total Material, Labor, & Asbestos:	\$15,663.55	
		Contingency: 10%	\$1,566.36	
		Subtotal:	\$17,229.91	
		Abatement Design & Monitoring:	\$56.40	
		Hazardous Waste Disposal Cost:	\$188.00	(Disposal of old fixtures - allowance)
		Environmental Subtotal:	\$244.40	
		Design, & Construction Mgt:	\$2,153.74	
		NYPA Project Mgt. & Administrative:	\$2,944.21	(See Note # 1)
		Project Management Subtotal:	\$5,097.94	
		Purchase of Fixtures:	\$13,877.00	(See Note #2)
		Project Subtotal:	\$36,449.25	
		Interest During Construction (IDC):	\$637.86	(See Note #3)
		Total Project Cost:	\$37,087.11	

Estimated Energy Savings

<u>Estimated Electrical Savings:</u>	<u>Estimated Fuel Savings:</u>	<u>MMBtu Savings</u>	<u>Cost Savings:</u>
kWh Savings: 10,689	Natural Gas: 0 ccf	0.0	\$0.00
kWh Cost Savings: \$1,105.73	Oil Savings: 0 gal	0.0	\$0.00
Monthly kW Savings: N/A	Other: 0 lbs	0.0	\$0.00
kW Cost Savings: N/A		0.0	\$0.00
Total Electrical Savings: \$1,105.73		0.0	\$0.00
Total Energy Savings: \$1,105.73			

Estimated Annual Maintenance & Facilities Savings

Facilities Charges:	\$4,137.60	
Pole Leasing Cost	(\$563.06)	(See Note #4)
Post Maintenance Cost:	(\$470.00)	(See Note #5)
Total Annual Maintenance & Facilities Savings	\$3,104.54	
Est. Total Savings:	\$4,210.26	

Simple Payback

Total Project Cost With IDC:	\$37,087.11
Estimated Rebates & Incentives:	\$3,525.00
Net Project Cost:	\$33,562.11
Total Amount Saved:	\$4,210.26
Simple Payback:	7.97

Project Financing

TOTAL AMOUNT FINANCED:	\$33,562.11	
Interest Rate:	3.00%	(See Note #6)
Years Financed:	10	
Number of Payments:	120	
Annual Debt Service to NYPA:	\$3,888.94	
Monthly Debt Service to NYPA:	\$324.08	
Total Project Cost after Financing:	\$38,889.39	
Total Annual Savings:	\$4,210.26	
Payback With Financing:	9.24	
Annual Cash Flow:	\$321.32	

Notes:

1. NYPA Project Mgt. & Administrative represents a fee of 12.5% of the Construction Costs, Asbestos Abatement, Design & Construction Fee, and associated contingencies.
2. Purchase price for NYSEG estimated at \$295/fixture. This value is reflected in the NYSEG asset sale price letter dated October 5, 2018
3. Interest During Construction (IDC) Estimated based on 3.5% interest rate.
4. Rentals of existing street lighting system components. Assumed to be approx. \$0.99/wooden pole per month
5. Post installation maintenance costs assumed to be \$10/fixture
6. Financing assumed at 3% interest. Actual rate is variable.