Town of Caroga
LED Street Light Proposal – Standard Photocells

Project Summary

As Town of Caroga embarks on a plan to upgrade its street lights, save energy and reduce operating costs by installing LED lightings, NYPA can partner with you to design and implement this important project. NYPA also offers low cost financing to qualified customers who upgrade their lighting system. Through this project, the Town of Caroga will upgrade all of its street lights; 166 street lights in total. NYPA projects annual savings your taxpayers of $17,232.01 in energy costs and 78.4 tons of CO2 emissions. Smart City technology can also be folded in this project (see Project Summary, CityTouch document for more information on associated costs). Smart City technology enables communities to integrate its lighting systems with sensors to capture data such as lamp outages and run hours, noise and vibration.

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 lighting design by a licensed engineering 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 laws.

Benefits

- Annual energy savings of $17,232.01 and annual maintenance savings of $6,795.84, for a total annual cost savings of $24,027.85.
- Simple payback of 6.23 years (including utility estimated incentive).
- Annual positive cash flow of $2,954.08. There will be $0 required up front from the Town for completion of this project. Even during the term of repayment, the Town will see this $2,954.08 as a savings from what it currently pays now in annual outdoor lighting utility costs and there is no penalty for pre-payment.
- Cumulative cash flow over 25 years of $622,102.73.
- Improved light quality and reliability. LED lights are "Dark Sky Friendly".
- 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 $149,719.64.
- The Savings to Investment ratio is 2.89.
- The Net Present Value for this infrastructure investment is $269,883.66.
- The Internal Rate of Return is 34%.

Next Steps

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

EXAMPLE SCOPE OF WORK

Subject: LED Street Lighting Upgrade Project

Project General Scope of Work:

NYPA will provide full turnkey service to replace street lighting fixtures throughout the Town with new high efficient LED Street Lighting Fixtures.

NYPA will provide full turnkey services for this project, at a minimum, the services will include:

- Design services
- Procurement and delivery of all lighting fixtures
- Engineering services during installation of fixtures
- Construction Management services during installation of fixture. This includes procurement of labor contract.
- Disposal of all lighting waste in accordance with all local, state and federal regulations
- Provide a complete, updated database of all fixtures replaced and installed. National Grid Database/Lighting Registry will be done by others
- Project financial closeout
- Provide one-year labor warranty
- Provide ten-year material warranty

NYPA Financing and repayment:

- Town repayment starts at the end of construction
- NYPA has low interest financing for up to a 10 year repayment term

All Applicable Utility Incentives will be applied