

Aggregated LED Street Light Design



Aggregated LED street light design is a cost-saving opportunity for municipalities interested in converting their street lights to LEDs. To participate, municipalities will use a Utility Conversion option where the utility retains ownership and maintenance responsibilities of the lights.

For anyone considering a streetlight project, an existing light inventory and design study ensures that the conversion:

- best meets the needs of the community,
- reduces the cost of operation, often significantly, and
- increases safety by strategically locating individual lights, using correct wattage, etc.

The design process includes many soft costs that can be prohibitive for smaller municipalities. However, **these costs can be reduced through an aggregation of the design work across a broader region.**

Most existing street lighting systems have evolved over time and were never properly designed by the municipality or utility. Professional street light design ensures the lighting is uniform, that proper wattage and color temperature are selected, and is the best practice to ensure community acceptance and the highest safety standards possible.

Why consider LED Street Lights?

Street lighting can be a significant budget expenditure. With advances in LED street lighting technology and favorable utility programs, many municipalities across the North Country region are converting their high pressure sodium street lights to LEDs, resulting in significant energy savings - 60% or higher in some cases.

By working with municipal leaders and design companies, ANCA has outlined the process below to “aggregate” (or “round up”) all of the street light design work performed by the selected company within a region. Each participating municipality interacts with the design company one-on-one to develop its own, unique street light design. By creating an economy-of-scale opportunity, the soft costs associated with individual projects are reduced.

The Design Aggregation Process

1. ANCA Energy Circuit Riders (ECRs) will provide support by connecting municipalities within a region that are interested in pursuing a street light design aggregation.
2. If one has not already been identified, a Lead Municipality will be designated to move the process forward.
3. The Lead Municipality, using templates provided by ANCA ECRs and with input from other municipalities participating in the design aggregation, will develop an RFQ to identify a qualified street light design company.
4. The Lead Municipality, with input from the other participating municipalities, will select a contractor.
5. The other participating municipalities will then piggyback on to the arrangement between the Lead Municipality and the design company selected through the RFQ process.
6. Each participating municipality will provide the selected contractor with necessary utility billing information.
7. Each participating municipality will work one-on-one with the selected contractor to develop a unique lighting design that will be submitted to the utility and used as the guide for the Utility Conversion process.

How Do I Get Involved?

To learn more about LED street light conversion or participate in LED Street Light Design Aggregation, contact: Jamie Rogers at ANCA: jrogers@adirondack.org; 518.891.6200

Other value-added aspects of a street light design process include:

Forensic Street Light Audit

A forensic audit confirms whether the municipality is being charged for the correct number of street lights. In the event that a municipality has been overcharged, the contractor will negotiate with the utility and settle on a refund amount, which will be distributed between the municipality and the contractor based on the terms set forth in the RFQ/contract.

GIS Field Audit and Inventory

The GIS field audit identifies the location of existing street lights and establishes the municipality's correct inventory. The audit provides the necessary information for the design phase. Examples include: width of roadway, distance between light poles, type of existing light, and type of roadway the light is serving.

Current LED Street Light Conversion Options for Municipalities

As part of NY State's Reforming the Energy Vision (REV) goals for clean, renewable energy adoption, the Public Service Commission has been working with utilities to develop pathways for utility customers to convert their existing street lights to more efficient and durable LEDs. Currently, two options are available for municipal customers:

1. **Utility Conversion:** Municipality pays a one-time upfront fee to the utility to install and maintain the new LED street lights. A municipality may also choose a "maintenance option" where the utility replaces existing street lights as they expire vs all at once.
2. **Municipal Ownership:** Municipality purchases the existing lights from the utility and hires a contractor to do the conversion. Municipality assumes maintenance responsibilities and continues to pay the utility only for electricity consumption.

Energy Circuit Riders

ANCA's Energy Circuit Riders help municipalities plan, finance and implement energy-saving upgrades to buildings and infrastructure as well as projects that focus on renewable energy technologies. Working side-by-side with municipal officials, they provide capacity and expertise to support informed decision-making.

To contact an Energy Circuit Rider or to learn more about their work, please call ANCA at 518-891-6200 or email energy@adirondack.org

About ANCA

ANCA is an independent nonprofit organization growing the New Economy in northern New York. Using an integrated approach to sustainable economic development and prosperity where economic health, community vitality and ecological stewardship are equally important outcomes, ANCA focuses on creating opportunity for people with diverse backgrounds, experience and education levels.