

# City of Somerville, MA Networked Solar Lighting Solutions

## Community Path becomes “Living Lab” for testing Clean Energy Initiatives

### Executive Summary

In its efforts to become “carbon neutral” by 2050, improve public safety, and serve as a testing ground for other cities and towns to learn about the positive effects of clean energy initiatives, the City of Somerville, Massachusetts, through an “Innovate Mass” Grant provided by the Massachusetts Clean Energy Center (MassCEC) has implemented a pilot program of networked lights along its community path to explore new ways to utilize wireless data and control algorithms to advance solar lighting technology.

### Situational Analysis

Located two miles northwest of Boston and occupying approximately four square miles with a population of over 75,000, Somerville, MA is the most densely populated community in New England. Defined by its many city squares, Somerville has received national recognition as a leader in innovation and efficiency for the addition of services such as the “311 Customer Helpline” and “SomerStat”, a data driven style of managing government services. It is this recognition and desire to continue to innovate and improve the safety of its residents that lead the city to work together with LED fixture manufacturer, Solar One, a CIMCON Lighting partner, to apply for the “Innovate Mass” grant from the MassCEC. The grant funding enabled the city to establish a pilot networked solar lighting program along its community path between Willow and Cedar Streets. This community path, not only helps to connect Somerville neighborhoods, but will lead into Boston, allowing bikers and pedestrians’ easy access to the city.

### Pilot Program Project Scope

The goal of pilot program is to examine the energy efficiency that a city such as Somerville could attain through the control of networked solar and grid connected street lights via adaptive wireless controls.

The pilot program required the installation of new LED street lights with wireless lighting controls containing motion sensors. In addition to sensing motion when bikers or pedestrians were present to adjust lighting levels, the wireless controls needed to provide the City with the ability to monitor changing energy levels within the solar batteries in order to modify lighting schedules, and provide alerts and reporting.

CIMCON Lighting’s intelligent wireless outdoor lighting controls were selected for their ability to easily monitor and manage both solar-based and grid connected lights. CIMCON’s iSLC-1000 wireless controller was selected for the monitoring and management of the solar-based lights, while its iSLC-3100-7P was selected for the management of the grid connected lights. The controllers were paired with CIMCON’s Wireless Gateway and Central Management System, LightingGale™ for remote monitoring and management. CIMCON’s solution was selected for its ease of installation and use, flexible dimming capabilities, remote control and scheduling, alerts and robust reporting.



### Client:

City of Somerville, MA

### Application/Environment:

Pilot program funded by the Massachusetts Clean Energy Center (MassCEC) to install networked solar lighting with wireless controls for adaptive dimming along a community bike and walking path.

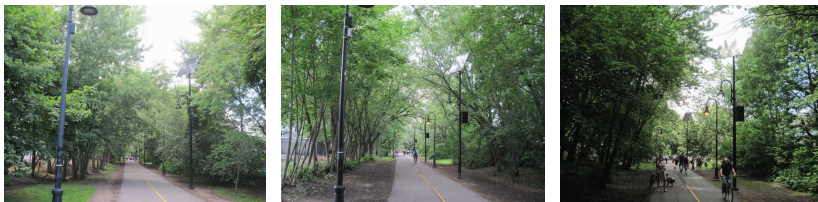
### Project Scope:

CIMCON Lighting’s iSLC-1000 wireless controller for monitoring and management of the solar-based lights; and its iSLC-3100-7P for management of grid connected lights.

## Implementation

Championed by Somerville Mayor, Joseph Curtatone and the MassCEC in its efforts to help Massachusetts Clean Energy Companies advance their solutions, Solar One's Project Leader, Ilze Greene and CIMCON Lighting's Vice President, Business Development, Tod Riedel worked with the Somerville Department of Public Works (DPW) to bring this project to fruition from project specification through installation and commissioning.

As part of its involvement in the project, CIMCON Lighting provided Solar One and the City's DPW department with technical support, and customized onsite and remote training.



## Results

Given that this installation was only completed in the Summer 2015, CIMCON Lighting is currently working with the City of Somerville in interpreting and analyzing the data that it is currently receiving from the controls.

## About Massachusetts Clean Energy Center

The Massachusetts Clean Energy Center (MassCEC) is a publicly-funded agency dedicated to accelerating the success of clean energy technologies, companies and projects in the Commonwealth—while creating high-quality jobs and long-term economic growth for the people of Massachusetts. Since it began operating in 2009, MassCEC has helped clean energy companies grow, supported municipal clean energy projects and invested in residential and commercial renewable energy installations creating a robust marketplace for innovative clean technology companies and service providers.

To learn more, please visit <http://www.masscec.com/content/about-masscec>

## About SolarOne

SolarOne Solutions, Inc. designs, manufactures and sells commercial-scale, solar-powered lighting and light emitting diode ("LED") technology for use in a variety of outdoor applications such as parking lots, streets, pathways, pedestrian areas, landscapes, outdoor signage and shelters. SolarOne is a recognized leader in the "grid-independent" outdoor area lighting segment and was the first company to deploy successful commercial-grade photovoltaic/LED large-area lighting systems. To learn more, please visit <http://www.solarone.net/#!corporate-overview/cmo5>

## About CIMCON Lighting

With over 25 years of innovation and experience in outdoor wireless applications, CIMCON Lighting is the world's leading provider of scalable, intelligent wireless outdoor lighting management solutions for traditional, LED and solar-based street lights. Focused on offering solutions that provide the lowest "**Lifecycle Cost of Ownership**," CIMCON pioneered the concept of "**Just in Time Lighting**" to ensure that the right amount of lighting is provided when and where it is needed. CIMCON's "**Just in Time Lighting**" reduces energy, maintenance, and repair costs while improving total ROI. CIMCON's lighting management solutions are appropriate for roadways, parking lots and parking garages, corporate and university campuses and a variety of industrial applications.

For more information, please visit [www.cimconlighting.com](http://www.cimconlighting.com).

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