

# Ayer Reduces Energy Usage and Prepares for Future Smart City Services with Intelligent Lighting

## Goal:

### Reduce Energy Usage and Costs

The Town of Ayer, MA is changing. "We used to be an army town because of our proximity to the U.S. Army base, but when that base closed, we began converting to a commuter town," said Mark Wetzel, Superintendent of Public Works for the town. "There have been a lot of new people moving to town."

To help attract new residents, Wetzel has an important mission. "It's my role to initiate projects that can improve the community. There is a lot of technology out there and I look at how it can benefit me, the operations of the Department of Public Works, the people that live in the town, and the merchants."

Wetzel decided that upgrading their streetlights to LEDs and adding an intelligent lighting management system were important next steps. "I'm very involved in the town's efforts to reduce our energy footprint and I saw that a number of communities were considering upgrading their lights to LEDs," said Wetzel. "Our utility provider began offering an LED tariff that was significantly lower than the tariff for high-pressure sodium lights. When I started looking at it, I realized, wow this could really save us a ton of energy."

## Solution:

### LED Light Fixtures, CIMCON's Intelligent Lighting Management System, and an Infrastructure for Future City Services

To start the conversion to LED lights, Wetzel bought the town's 520 streetlights from their utility provider. Then the town began investigating lighting management systems. "I was committed to buying a system that would set us up for future growth and improvement. We were considering additional infrastructure and smart city improvements down the road and I didn't want to buy a system that would make me look back in two years and say, 'I should have bought a different system'."

"The Department of Energy's Green Community Division spoke highly of using intelligent controllers with the LED fixtures so we could reduce energy usage," said Wetzel. With the help of the Metropolitan Area Planning Council of Massachusetts, the town put out a bid to purchase streetlights and a lighting management system.

"We evaluated three different solutions and selected the lighting management system from CIMCON because it met all our needs," explained Wetzel. "The CIMCON system was very easy to use and cost-effective and CIMCON provided all the support we needed to get the benefits we envisioned. Plus, when we evaluated the solutions regarding our desire to add more smart city services in the future, CIMCON was the only manufacturer that gave us the future-proofing we needed," said Wetzel.

## Results:

### A Future-Ready Infrastructure that Immediately Reduces Costs and Energy Use

Ayer now uses CIMCON's lighting controllers to remotely manage their streetlights. "The installation of the lights and CIMCON's lighting management system and

## Client:

### Town of Ayer, MA

Located 35 miles northwest of Boston in the historic Nashoba Valley of Massachusetts, Ayer is a thriving town of approximately 8,000 residents.

## Application/Environment:

Smart city initiative with 520 streetlights

## Solution:

- CIMCON intelligent lighting controllers
- CIMCON LightingGale™ lighting management software

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### Mark Wetzel

Superintendent of Public Works  
Ayer, MA

controllers went really well," said Wetzel. "CIMCON's technical support during the installation was really good and it's been a very reliable system."

"My main goal was to improve the community and I think I'm doing that," said Wetzel. To date, Ayer has benefitted from the solution in the following ways:

- **Reduced Lighting Costs** – After two years of use, Ayer will have reduced its lighting budget by 60%. According to Wetzel, "I'm saving a ton of money on my streetlight budget, so I can spend that money somewhere else. The payback is quick – approximately 2 years even if we didn't have the grants to pay for some of the equipment. Our utility charges us a fixed fee per streetlight, but once they begin to bill us for actual usage, then we will pay based on our dimming schedule and we will save even more money. Any community would be crazy not to go through this process."
- **Better Energy Management** – "Prior to this project, I had no idea how much energy we were using. Now I can pull up a report and all the data is right there," said Wetzel. "I can see how much energy we are using or saving and do modeling for future changes."
- **Faster Response to Lighting Issues** – "I don't have to wait for a citizen to tell me there is a lighting issue. It's cool to go right in, scan around the map and see what's going on," said Wetzel. "I even get an alert that says this light isn't operating or not turning off, and when we do have problems, such as power feed issues, I have a lot more control to resolve it quickly."
- **Better Response to Citizen Inquiries** – "We can be more responsive to the community," said Wetzel. "If someone feels the light is too bright in front of their house, we can dim that light."
- **Easy Operation for DPW Staff** – "I didn't know anything about streetlights when we started the project and I don't have the time to become a power user of the system," offered Wetzel, "The system is easy to use and CIMCON provides pretty good customer support, so I've quickly become productive with the system. That's a huge benefit."

#### A Backbone for Solving Citizen Issues

In addition to the immediate benefits that the town has experienced, Ayer now has an infrastructure for solving additional citizen issues in the future. "The most exciting thing about the CIMCON system is the opportunities it gives us to improve the town. We can use it to install speakers to play holiday music on Main Street, to add video cameras to analyze traffic issues, or to use motion detectors to raise the lights when people are walking around. To make those ideas a reality, it was critical for us to add this backbone network that can be easily configured and monitored."

#### About CIMCON Lighting

With a heritage of over 25 years of innovation and experience in industrial automation and outdoor wireless applications, CIMCON Lighting is a leading provider of intelligent outdoor lighting management systems and innovative smart city technologies. CIMCON powers multi-sensor smart city solutions enabling you to easily collect, visualize and act on real time data with street level to city-wide resolution. Our patented technologies transform an existing streetlight infrastructure into a digital canopy that connects, protects and enhances the community, while reducing operating costs. Using our managed services, we ensure that a municipality's specific outcomes are completely and successfully achieved, both operationally and across all constituencies. For more information please visit [www.cimconlighting.com](http://www.cimconlighting.com).

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