



# City of Les Mureaux

## Citylone Case Study

The City of Les Mureaux, located in the West of Paris, has 32,000 inhabitants. With 70 kilometers of roadway, 4,300 lighting points and the scheduled creation of more than 20 hectares of supplementary public place with seven additional kilometers of roadway, the City will have to increase the number of lighting points by 1,000 while keeping a moderated energy consumption.

This project is an innovative challenge, which fits completely with the energy efficiency program launched by the City in 2009, but Les Mureaux had to reconsider the way public lighting was managed to reach this goal.



In public lighting, today's technologies can help to bring only the necessary light during the times when night usage is very low. Moreover, public lighting is one of the highest energy consumption of the City but it needs to be there to light where and when it is necessary. Public lighting remote management allows the City to manage each lighting point as it is needed, and to see an overview of the global system, while ensuring energy savings and citizen security.

The City of Les Mureaux needed to find a solution that answered all its requests: save energy, security for its inhabitants, and which can be later utilized as the primary backbone of its smart city.

The solution chosen was the Citylone lighting point remote management using Power Line Communication, which allows the City of Les Mureaux management of the whole lighting system with adaptation of public lighting to meet the needs of its citizens.

As of now, and without investment in renovation of luminaries, the City has chosen the lighting point management solution to optimize lighting by:

- Lighting adjustment
- Power reduction
- Less re-lamping
- A permanent and remote control of the installations
- Automatic alarms in case of failure of functioning default
- Lighting management by type of road, type of living areas, or public space

This solution allows:

- Supervision, remote diagnosis of defaults
- Detection of lamp or ballasts failures
- Detection of power failures at each cabinet

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- Creation of scenarios for power reduction
- Elaborate dashboard and alarm follow up
- Follow up of consumptions, energy savings and investment

The City has chosen the Citylone solution because this remote-controlled system can manage any kind of lamp, any kind of ballast (magnetic or electronic) and can be placed on any kind of material, regardless of the material and its age. With the large range of Citylone products, the City can now find the requested controller to fit its need.

The solution also allows a global vision of the whole system, point by point, from the operator's desk. Furthermore, the software can receive data and edit complete statistics about its public lighting.

A few months ago, the City participated in a French event called 'Le jour de la nuit' (The day of the night). Le Jour de la Nuit is an event to promote awareness to lighting pollution, protection of biodiversity and starry sky. To participate, the City of Les Mureaux has decided to switch off public lighting during one night.

Citylone controllers installed in each luminary has helped the City to realize this very easily. In a few clicks, the controllers powered off the lights, only on the chosen day. This operation has been a complete success, which shows City engagement for environment protection.

But if Citylone solution is managing public lighting, it also goes further to help the City in many other areas. With the solution chosen by the City of Les Mureaux, the network can be remained powered 24 hours a day and proposes an electrical network available on all the City for other uses. Thus, the City has decided that any kind of material requesting energy powering installed on the public area can be connected on this network. For example, the City has connected: information terminals for transport users, urban video cameras, educational speed cameras, car sharing information panels, scrolling advertising panels, signs allowing parking management, and orientation of drivers to available parking places. This electrical and communication network availability saves a lot of engineering work, and thus a lot of money.

Furthermore, the City has high tech sensors for parking in the City center. These sensors create a communication network which

send wireless information to data collector, placed in relay locations, and are powered electrically by the public lighting system. These sensors send information of occupation to the parking management system which communicates information to the information display panels placed in the City, also powered by the public lighting network.

The City has just finished equipping 2,300 lighting points with SL42-FD-1T-M-T controllers (for magnetic ballasts) and SL21-E-M-T controllers (for electronic ballasts).

This system allows moderation of energy consumption as today for 4,300 lighting points, the energy consumption is the same than before with 3,900 lighting points. Other key benefits include:

- Adjustment of lighting of the roads according to frequentation
- Security of the citizen by detection of failures
- Energy savings (reduction of 46% of power at cabinet)
- Savings on re-lamping
- Remote management
- Failure detection also during the day to save night tours
- Quick switch off from the computer in case of problem in the City
- Real time control of chosen luminaries during events
- Creation of an electrical network anywhere in the City to power any kind of material.

The City now has a new French company partner in Citylone, one that is fully committed and engaged as a team to provide robust solutions and ensure company and customer success.



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