

Intelligent lighting in Saint-Thomas-en-Royans

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Year of commitment : 2013

Digital services : Mobility, Safety



15 030 000 €

GENERAL INFORMATION

In a context of declining allocations to local authorities and rising energy prices, the financial pressure on municipalities is increasing. Thus, reducing the electricity bill represents a real challenge for cities and allows them to enter the energy transition.

Enekiö proposed to 10 municipalities of Drôme and Isère to optimize the energy efficiency of the luminaires present on their roads using its radio technology. This allows the different elements of the urban infrastructure to communicate with each other and a centralized server. The lighting becomes intelligent and reduces the light intensity on the traffic lanes until the arrival of a car or a pedestrian.

The commune of Saint-Thomas-en-Royans has agreed to install the Enekiö solution on its main road. The electricity bill in the municipality was reduced by 75% and maintenance costs were reduced to zero. The integration of the sensors does not require the replacement of the luminaires, the time of return on investment is 4 years and the image of the city is preserved.

Following the results obtained, 30,000 luminaires out of the 10 municipalities requested are in the financing phase within the framework of the Enekiö City project.

Progress Status

Delivered

Data Reliability

Self-declared

Funding Type

Private

Website Enterprise / Infrastructure

<http://enekio.com/>

Sustainable Development

Attractiveness :

The town of Saint Thomas en Royans is located in the Rhône Alpes region in the department of Drôme (26).

Saint Thomas en Royans (Capella sancti Thomae in 1204) is one of the five communes that occupy the south bank of the Bourne. Its communal territory extends to the west of the Lyonne until the wooded reliefs which separate it from the territory of La Motte Fanjas. These are rural towns with a strong tourist aspect. Car journeys are important because of the spacing of the premises.

Social Cohesion :

The initiative itself contributes to the awareness of the inhabitants about the changes that can be made to limit unnecessary consumption and to adopt a more sustainable way of life. The reduction of electricity bills in the municipality can finance new economic development projects or new services for the inhabitants.

Preservation / Environmental Improvement :

The use of LEDs minimizes the impact of night lighting on biodiversity by reducing light pollution.

- By reducing the electricity consumption of lighting fixtures by 75%, the solution reduces the resources necessary for the production of energy necessary for their operation.
- By optimizing equipment maintenance, the solution also reduces the fuel consumption required for technicians to move.
- By proposing technological breaks, Enekio proposes a real reduction in the ecological footprint associated with local authorities and industries.

Resilience :

The network created by the various radio terminals that equip the luminaires is open. It can therefore be used for other applications. If Enekio proposes some of them within the framework of the Enekio City project, the inhabitants can also develop their own according to the initiatives they want to launch (ex: water and gas meters, air quality, Complementary money system rewarding the inhabitants who sort waste).

Responsible use of resources :

Impact CO2: 550 tCO2 (Calculation carried out by retaining an emission of 0.009 kg carbon equivalent per kWh saved).

- 550.8 kg CO2 saved per year on lighting in Saint-Thomas-en-Royan
- 972 t CO2 saved per year on lighting affected by the Enekio City project Energy Sobriety
- Reduction of consumption by 75%
- Maintenance costs reduced to 0
- Return on investment of 4 years
- 30,000 light fixtures on the 10 communes of Royans are being studied as part of an Enekio City project.

Governance

SAS Enekio

Holder Type : Private Company

- Consultation with the commune, the municipal council, the mayor, the city's technical managers and the inhabitants.
- Turnkey solution delivered by Enekio
- The investments were carried out by Enekio in partnership with the town hall of Saint-Thomas and the canton of Royans

Business Model :

- Montant investissement à la charge de la collectivité : 30 000€ HT (pre-tax price)
- Enekio City : 15 millions €

Sustainable Solutions

Intelligent lighting Enekio

Description :

The technical solution used consists of controlling, controlling, maintaining and managing consumption across the entire existing infrastructure to obtain a building and a positive energy infrastructure. The current design of centralized technical management by recording energy expenditure. They are mainly sectorized by type of category:

- Electricity (lighting).
- Air conditioning ventilation (traditional).
- Heating (electric or other) but not solar.

The solution acts on all consumption parameters without affecting the infrastructures, by remote control (internet), by feedback via sensors (wifi or RF type) and



the control of the entire installation from of a system deployed to customers.

Public lighting: method of setting up the intelligent lighting system Enekiio has developed a radio solution for street lighting that reduces consumption by 75%. Enekiio has integrated in a luminaire, an intelligent electronic system controlling the radio, presence detection, variation of the intensity of light. The radio solution by Enekiio allows remote communication with luminaires, in accordance with the environment. In this way, it brings a gain on the maintenance of the luminaires, thanks to the transcripts of information transmitted by the latter. Through this solution, the luminaires become independent and communicate with a dedicated server to reduce consumption and optimize maintenance.

It is therefore a question of creating a city that is digital and energy efficient. To improve the services of the city, Enekiio has innovated in the field of radio to bring additional applications to its system. You will be able to do water, gas and electricity surveys at a distance, but also control the management of waste, information panels, parking lots, for example.

- Urban Lighting
- SmartGrids

Contest

Building candidate in the category



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