interact City

Smart lighting that protects the natural habitat

With Interact City, Białowieża has improved safety and lowered energy consumption while reducing light pollution to protect animals. Białowieża can now benefit both its world-famous forest and the people who live in and visit the city.

Customer challenge

Białowieża's magnificent primeval forest—a UNESCO World Heritage Site—is a major tourist attraction. Municipal authorities must balance economic and technological development with the preservation of this natural heritage.

With the upgrade of Białowieża's street lighting, city officials had three objectives: preserve enough dark sky to support the forest animals' circadian rhythms, illuminate roads and open spaces to create a greater sense of safety and cater to residents' needs and tourist traffic, and generate substantial long-term energy savings.

Solution

Białowieża financed the project with help from Poland's SOWA plan—a large-scale green investment program that aims to improve the energy efficiency of city street lighting systems.

The city upgraded much of its public street lighting to connected LED and adopted Interact City Scene management software across the municipality's seven villages. Officials prioritized roads most used by residents and tourists throughout the year.

"When planning this investment, we had to constantly bear in mind that Białowieża is not just an urban community, it is also a common natural heritage, recognized by UNESCO."

Grzegorz Kasprowicz, Białowieża Commune Head

Interact — Making it happen

With Interact City Scene management, officials can switch luminaires on and off remotely using an intuitive user interface, and set up lighting schedules for individual luminaires or groups. The entire lighting network can be controlled centrally from an operator's computer. Interact City makes it easy to monitor and manage the lighting infrastructure, helping to reduce response time for lighting failures to ensure minimum disruption and downtime.

Preserving the forest

Interact City Scene management successfully preserves a generous zone of dark sky, providing sufficient illumination at the street level while at the same time minimizing sky glow, which could interfere with the forest animals' natural circadian rhythms.

Reducing costs and consumption

With Interact City Scene management and connected LED street lighting, Białowieża has been able to reduce energy consumption by 77%, save €34,000 in energy expenditure per year, and reduce annual CO_2 emissions by 280 metric tons.

Improving operational efficiency

With Interact City, operators can remotely control the street lighting, adjusting light intensity to suit road conditions in near real-time, and ensure that road lighting requirements are met.

Scene management

Remotely adapt city lighting to time of night, season, or context. Turn lighting up if there's a traffic accident or crime. Dim to 30% when the streets are empty late at night. Use sensors on the light poles to detect activity, keeping your citizens safe and comfortable and easily turning parks and plazas into livable spaces.

Project details

- Energy consumption reduced by roughly 77%, resulting in savings on both energy and operating costs
- Annual savings of approximately PLN 150,000 (over €34,000)
- Annual energy consumption reduction of 315 MWh and annual CO_2 emission reduction of 280 metric tons

Find out how Interact can transform your business

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