



Białowieża's balancing act:

the right lighting

Owing to its magnificent primeval forest—a UNESCO World Heritage Site—Białowieża municipality is a major tourist draw. As a result, authorities must balance economic and technological development with the preservation of its natural heritage; Białowieża's street lighting renewal is a perfect example.

The authorities had three objectives:

- Preserve a certain amount of dark sky at night to accommodate the forest animals' circadian rhythms
- Illuminate roads and open spaces at night to create a greater sense of safety and cater to residents' needs and tourist traffic, and improve overall quality of life
- · Create substantial long-term energy savings



Philips connected lighting

The municipal authorities renewed public lighting with a CityTouch lighting management system across the entire municipality (comprising seven villages), prioritizing roads most used by residents and tourists throughout the year. The system offers easy-to-use web applications to analyze, plan and maintain workflow management, while letting the municipality monitor, manage and measure their connected lighting through the applications.

Enhancing a UNESCO World Heritage site with street lighting

Białowieża financed its public lighting renewal partly thanks to Poland's SOWA program—a large scale green investment scheme. The program aims to support the implementation of projects that improve street lighting systems' energy efficiency. The municipality received a subsidy of up to 45% of eligible costs for the project, and a loan of up to 55% of eligible costs for the project.

From its intuitive user interface, users can remotely switch luminaires on and off, and set up lighting schedules for individual luminaires or groups. The entire lighting network can be controlled centrally from an operator's computer. Its full lighting network preview makes it easy to monitor lighting parameters, helping to reduce response time for lighting failures and ensuring minimum disruption to illumination. By monitoring the luminaires' performance details, Białowieża can plan maintenance work ahead of time to minimize costs.

Urban lighting renewal

CityTou

Białowież

The new luminaires have a fully recyclable aluminium housing. Modernity and technology can—as you can see—go hand in hand with ecology!"

Grzegorz Kasprowicz, Białowieża Commune Head



Savings in costs and energy

Energy consumption is about 77% lower, meaning energy and operating costs have both fallen drastically: savings total approximately PLN 150,000 (over $\leq\!34,\!000$) per annum. On top of this, Białowieża is enjoying reduced annual energy consumption of KW 315,51 MWh and reduced annual CO $_2$ emissions of 28,081.



Flourishing forest

The new street lighting system successfully preserves a generous zone of dark sky, without interfering with the forest animals' natural circadian rhythm.



Better lighting at night

The CityTouch flexible lighting management system has improved visibility along pathways, and provides an increased sense of safety for locals and tourists alike.



Operational efficiency

Operators can now remotely control the street lighting, adjusting light intensity to suit road conditions in near real-time, and ensuring they meet road lighting requirements. Meeting lighting demands across Białowieża throughout the year is now easily manageable.

