

Since 2018



50 000 pcs
LED lamps



1,8 mil. €
yearly savings

Kiev - case study

„All this is possible thanks to the lighting control, which is installed in the street lighting network. This system allows us to save the working hours of employees and the budget of Kiev for street lighting.“

Director of the municipal corporation "Kyivgorsvet"

Major problem was the high electricity consumption

Public lighting of Kiev consists of approximately 180 000 pieces street lamps. The public lighting system was originally dominated by mercury and sodium discharge lamps (70, 150, 250 and 400 W). Lighting was controlled mostly by local clock-based switches. A major problem was the high electricity consumption and maintenance costs of the outdated lighting system.

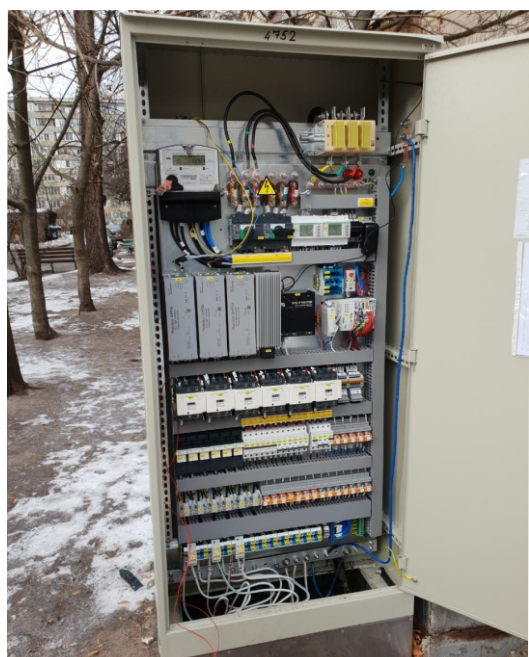
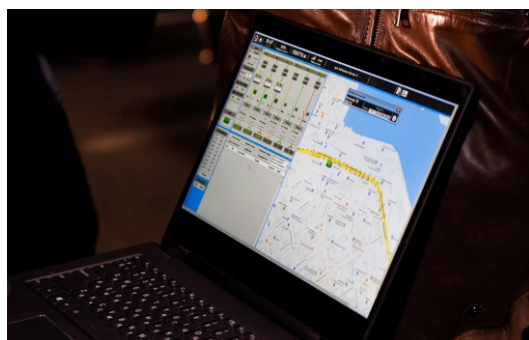
Each lamp is integrated in the smart city dashboard

SEAK's Ukrainian partner Hidden Energy has upgraded the discharge luminaires with smart, dimmable discharge ballasts in several streets of Kiev. This has proven that SEAK original powerline communication is a very viable solution, which is robust enough and ready for mass deployment in a city of Kiev.

In 2018, the Kiev City Council has started a city programme of exchange of old street lighting with LED technology and introducing a smart city lighting control system. Hidden Energy took part in the tender process in cooperation with Ukraine-American company ITW SYSTEMS. ITW had tailor-made special street luminaire, with integrated driver and SEAK powerline controls directly on the board with efficient LED chips. This solution provides the most cost-efficient solution for Kiev which combines energy savings, remote control with much better lighting on the streets.

By 2020, approximately 50 000 luminaires and 360 cabinets have been upgraded. Thanks to SEAK technology each individual lamp is integrated in the Kiev smart city dashboard controls.

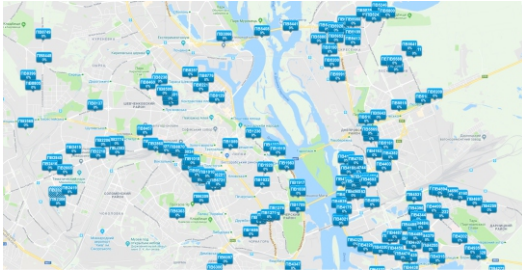
The control room can flexibly change intensity lighting according to a predetermined schedule (autonomous control) or using a dispatcher command (centralized control). Kiev municipality also plans to integrate EV charging with load balancing function into the public lighting system.



Kiev - case study

Smart Lighting application

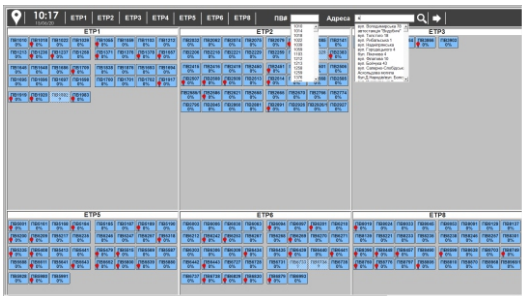
The result of the cooperation between Seak, R2D Digital and Hidden Energy is an lighting management application for the city of Kiev. This application is integrated to smart city dashboard and brings many interesting functions for lighting management:



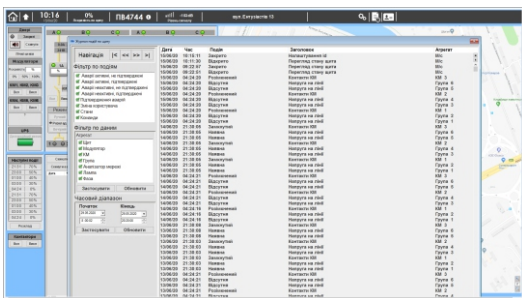
Allows user to trace switching points through maps



Manage the light intensity for the whole city, for luminaire groups or for each luminaire individually



Provides monitoring of all alarms in one place. The application automatically detects and highlights the failure of all luminaires



Application offers several standard, customizable reports. Whether to inform users about the energy savings or generate full report with information about Voltage, Current, Power and Power factor for individual cabinet and phases in a simple table and charts.

