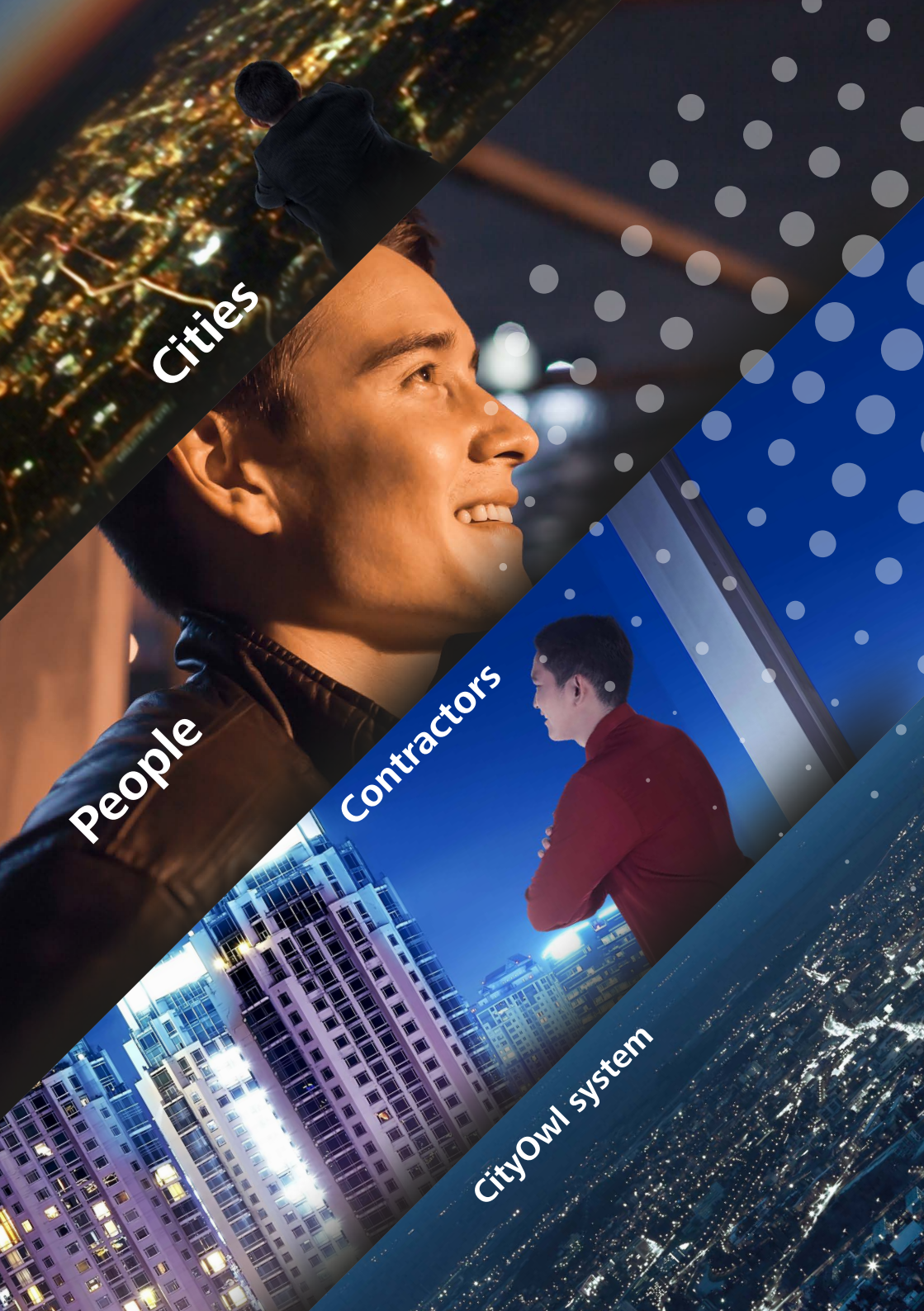




CITYOWL
CENTRALISED STREET LIGHTING CONTROL
AND MONITORING SYSTEM

SLE®
smart lighting engineering



Centralised street lighting control and monitoring system

Well designed street and urban lighting can support the economy of communities and cities by attracting visitors to all matter of outdoor activities such as markets, concerts and cultural events. It is, therefore, important that key buildings, monuments and parks are well illuminated to be appealing to those passing through.

Proper management and maintenance of a lighting solution can be quite complex, time-consuming and expensive. For this reason, we developed the innovative CityOwl. A state of art solution for street lighting control and management that will allow you to save money and increase your comfort.

Welcome to **CityOwl**.

To Cities

Ensure accuracy

The astronomical sunrise and sunset timings are calculated very precisely, based on the exact site of the installation. It enables that each luminaire power line is switched on and off accurately, resulting in energy and cost savings.

Individual management of luminaire power lines

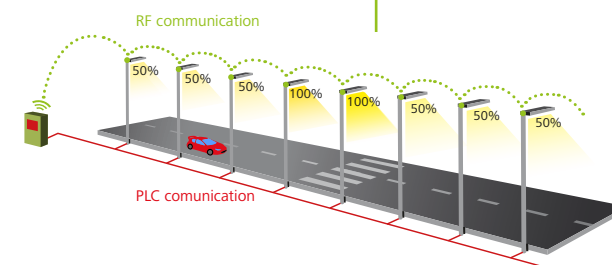
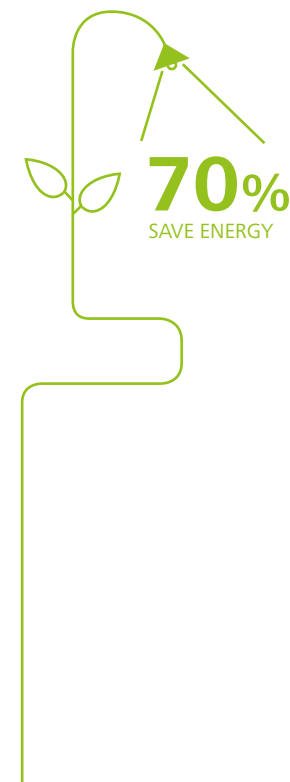
It is possible to individually programme the switching and management of each luminaire power line according to a night-schedule for different zones, or using dimming in accordance with requirements and standards. The result is a positive effect on the environment, reducing light pollution.

Powerline communication

Control is facilitated along the existing power supply infrastructure. This allows all communication to be done without the need for additional control lines or cabling, thereby minimising reconstruction costs. The solution is ideal especially for older installations with a limited number of phases. Communication is facilitated using special transmitters located in the distribution boxes and receivers within the luminaires, which use a signal modulated to pass along the power supply lines without interference to stable supply.

RF communication

All control commands between the central control unit and the luminaire are sent using RF communication. This allows minimizing the cost of installation, plus lighting systems can be reconstructed without need for replacement or addition of wiring infrastructures nor investment in control line cabling. It also means that no fees need to be paid for the transferred data, which further reduces operational costs.

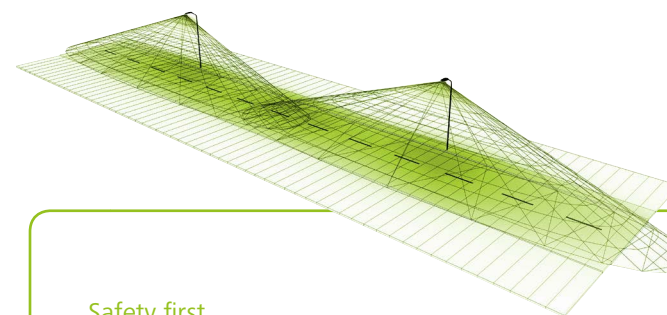


“ Easy and fast to implement



“ Comfortable to use

To People



Safety first

The main function of public lighting in the darker hours is to provide high enough levels of illumination to enable the detection and identification of objects and people, as well as escape routes in case of an emergency. With CityOwl the lighting can be adjusted as needed, for instance during an event, a selected area can be lit up for all night for public safety.

Easy to use

CityOwl control is facilitated by user commands (switching, and others). Through RF intelligent topography, the central control unit can receive data from each individual luminaire, which allows it to synchronise user commands from all systems simultaneously, even if a considerable distance separates the control unit and luminaires.

Interactive map

The software integrates appropriate Google maps, which allow for a practical overview of the complete system infrastructure, interactive functions, and various map view features of that area, including landmarks and buildings.



To Contractors

Programmes

The software provides two management options and allows the use of predefined luminaire control profiles, making it a flexible solution that can be adapted to a particular region or city zone.

Reports

The web-based software offers a wide range of reporting options that can be selected according to time or event. It is possible to track and monitor luminaire status, consumption, and time of operation.

Control panel

The control panel acts as the control interface for remote regulation of the lighting. It provides easily accessible and understandable information about luminaires, luminaire power line status, and control, and ensures the visibility of system errors via error notifications.

Detailed overview

The software provides a detailed overview of all information for each luminaire power line, individual luminaires, and about current settings and measurements. Users have the additional possibility to create further reports and working inventories.

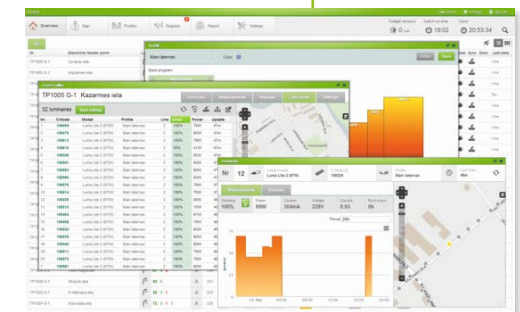
Notifications

Notifications are shown within the system and are sent to users via SMS or email. The system provides notifications in the case of:

- » power failures in a distribution box
- » communication errors
- » switching of luminaires at the wrong time
- » luminaire failures



100%
AVAILABILITY



“ Reduce paperwork, archiving and maintenance costs

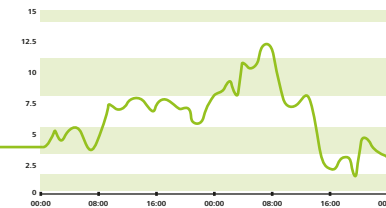
CityOwl system



100%
RELIABILITY

The **central control unit** is used to control and monitor the lighting and allows the management of the system via the software. It provides measurements of mains supply through expansion of the measurement module, as well as detailed measurements for individual luminaire power lines including power consumption, leakage current, and line status. The collected data is then submitted to the server, where individual entries are processed and evaluated.

The central control unit is also able to read the status of an electric meter through the serial port, and current power consumption if the meter allows it. Plus it can monitor the status and opening of distribution box doors using an external sensor.



Energy measurements

The central control unit can be connected by sensors to each luminaire power line, which allows for current measurement and detection of power fluctuations.

Pulse measurements

Serial input and output for pulse measurement allows for connection of the control unit to most types of electrical meter to take readings, which are sent to the software to streamline and clarify control.

Safety

The central control unit also acts as an anti-vandalism device by alerting users about unauthorised opening of distribution box doors.

last month
22 kW

needs
repair

dimming
75%

“ Extendable and future proof

Software functionality and benefits:

- » Web-based software for use on a computer, tablet, or smartphone.
- » Possibility of integration with other systems based on the open API protocol.
- » Option of installation directly on the customer's server.
- » Unlimited number of users.
- » Option to set access authority levels.
- » Activity planning, inventory, and reporting.
- » Online management that includes switching and dimming of luminaires.
- » Itemised information about luminaire consumption, performance, installation type, etc.
- » Interactive GIS (specialised map) for the control and monitoring of components.
- » SMS and email notifications.
- » Energy measurements for up to 36 luminaire power lines covering voltage, current, reactive power, active power, $\cos \phi$.
- » Individual luminaire energy measurements covering voltage, current, reactive power, active power, $\cos \phi$.
- » History log showing cabinet door opening, switching on and off of the circuit breaker, dimming, etc.
- » Creation of luminaire and control gear groups.
- » SSL 256-bit encryption of data transferred between the web-based software and central control unit.
- » Android mobile application for remote controlling of luminaires.
- » Contactless readings possible with NFC tags.
- » Android mobile management application.

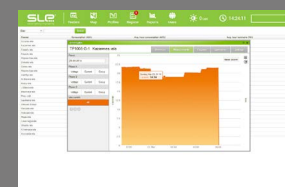
Possibility of preset profile management:

Relay switching, switching of Christmas lights, and advertising boards.
Management based on Astro Clock, Twilight Sensors, motion detection, and even traffic sensors.

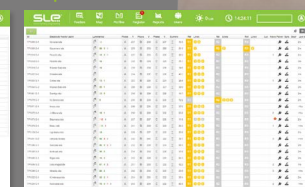


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NO OPERATION FEES

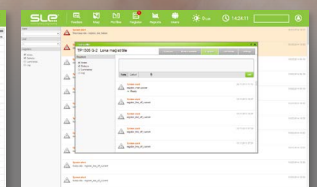
Detailed overview



Reports



Notifications



An aerial night view of a city skyline, likely Bratislava, Slovakia, featuring a river and numerous illuminated buildings. The sky is a deep blue with scattered white circles of varying sizes, resembling stars or bubbles. The city lights are visible in the foreground and middle ground, with a bridge and a large body of water in the distance.

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