

City cuts energy bill by 54% at its outdoor parking space



CASE STUDY

Outdoor Parking,
the Netherlands

“This is a beautiful solution for outdoor parking spaces.
Why isn't this applied everywhere?”



Visitor
Park+Ride, Transit Hub



©2021 Twilight Projects B.V.



“ Outdoor lighting accounts for over one-third of our total energy usage. We want to reduce our energy bill and lower our maintenance costs. ”



Harry van der Wal
Energy Manager, City of Groningen

Background

Located on the outskirts of the city, the Park + Ride (P+R) transit hub is a large outdoor parking lot used by over 2.500 individuals per day. Commuters park their cars at the P+R and use the onsite public transport system to enter the city. While most of the cars are parked during the day, about 10% of the cars stay throughout the night. To ensure public as well as vehicular safety, over 100 lamps were lit at full brightness all night.

Challenge

With continual pressure on the city's budget, the City Council sought ways to lower its energy bill as well as reduce maintenance costs. At the same time, there were complaints from the neighboring community concerning the excessive lighting at this location.

Although switching off the lights after midnight is a financially attractive option, this would severely compromise public safety. The city wanted a solution that would lower its energy bill without compromising safety.

Solution

The City Council opted for Twilight's dynamic lighting solution and installed CitySense units throughout the parking lot. The solution works in a simple manner. The lights automatically dim (to 20%) during off-peak hours when there is no one around. As soon as any presence is detected, all the lights surrounding the occupant glow to full brightness. This ensures that there is sufficient light around occupants making them feel safe and comfortable. The City Council also adopted Twilight's remote monitoring and control software, CityManager, to collect statistical data and failure reports.

The results are astonishing. The city has achieved energy savings of 54% on its conventional lighting and the community has hailed the city's efforts and given positive feedback about their experience.

Benefits*

Municipality

- ✓ Over 50% energy cost reduction
- ✓ Reduced maintenance costs of up to 50%
- ✓ Excellent reduction in energy use without compromising safety
- ✓ Fits into the 'Smart City' vision
- ✓ Energy data and failure reports through CityManager

Citizens

- ✓ Feel safe, and are not afraid to leave their cars parked all night
- ✓ On-demand lighting
- ✓ Reduced skyglow

Planet

- ✓ Significant reduction of CO₂ emissions
- ✓ Reduced light pollution

Project information

Location

Outdoor parking

Client

City of Groningen

Project scope

94 CitySense units

Average savings

Over 54%

Installation company

Ziut B.V.

Date

2013

* Data from CityManager



©2021 Tvilight Projects B.V.

 www.tvilight.com  info@tvilight.com  +31 (0) 20 760 7380

Tvilight Projects B.V. - Beechavenue 162-180 - 1119 PS Schiphol-Rijk - the Netherlands

TVILIGHT
EMPOWERING INTELLIGENCE

©2021 Tvilight Projects B.V. All rights reserved. No part of these pages, either text or image may be used for any purpose other than personal use. Therefore, reproduction, modification, storage in a retrieval system or retransmission, in any form or by any means, electronic, mechanical or otherwise, for reasons other than personal use, is strictly prohibited without prior written permission. The publisher accepts no liability for the consequences of using this text.