

ELECTRONIC BALLASTS “ELBALL”

SECTOR

Road
Street, square

HEAT COMPANY IN JAROCIN PEC, JAROCIN (Poland)

The new networks (constructed since 2005) are equipped with the electronic ballasts “ELBALL” resulting in the great energy savings. The calculations prepared by the Partner PEC Jarocin show that the average monthly energy cost of one luminary in the old system is 40% higher than in the new system managed with the ballast. In 2006 PEC Jarocin made a modernization of 301 units of luminaries to the new electronic ballasts systems.



PARTNER

The Heat Company PEC Jarocin was created in August 1997 by Jarocin Municipality and the City Office. At the frames of its activity diversification, since January 2005, the Heat Company PEC Jarocin take place in building, installation and exploitation of street lighting. At the local market this company is the second street lighting operator just behind the OUiD Company in Kalisz.

The Company is responsible for:

- programming and coordination of the district heating development in the municipality and city areas
- heat production and distribution as well as other production and services in respect of the heat supply
- general construction work of the network as well as the investment activities in the field of heat sources, heating substations and other heating infrastructure facilities development and modernization,
- specification of the technical requirements for the heat energy demand, designing and consulting services, approval of the district heating network and heating substations
- operation of the heating facilities ordered by other companies
- street lighting network operation, maintenance and designing

Since 2005 the Company has enlarged its activities to street lighting and other open public areas lighting.

Context

In 2005 the Municipality of Jarocin as the shareholder transferred to PEC Jarocin a part of street lighting and other public areas lighting. PEC Jarocin got 250 of the lighting points located at the different places at the gmina's Jarocin territory. According to the "Economic development strategy of Jarocin and Local development programme" resolved in June 2004, there was prepared long term investment plan of street lighting modernization and development comprising 2006 until 2015 period. Since 2005 the company managed and operated the street lighting at local territory. It undertakes activities in the new investments and modernization of the old lighting systems in order to improve quality of the lighting, energy and economic savings.

At present the Company is going to prepare the installation of the new intelligent electronic system to manage the whole street lighting in the city.

EXPERIENCE OF THE PARTNER

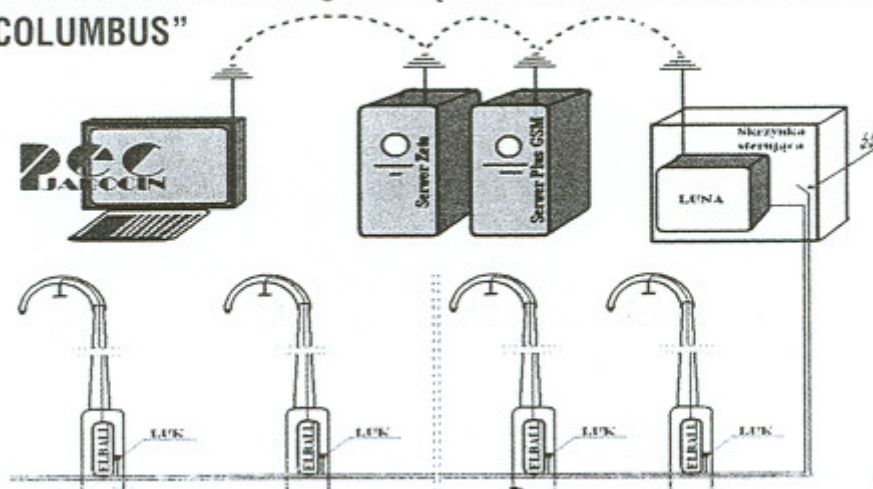
Partnership process

At the beginning of 2006 the TRIMAX company, as an endorser in the GreenLight Programme, invited the Heat Company PEC Jarocin to be a partner in the GreenLight Programme. The lighting and the energy efficiency specialist from TRIMAX, as a adviser and consultant, is preparing all the system of the street lighting in Jarocin city.

Technical data



Schemat elektronicznego zarządzania oświetleniem ulicznym „COLUMBUS”



Electronic system of the street lighting management consists of:

1. Ballast ELBALL
2. LUK – local Communication Set
3. Data transmitter – special electronic cable or PLC
4. LUNA – Local control set
5. GSM GPRS
6. Servers – Plus GSM – ZETO
7. Columbus programme
8. Address and lighting managing code

The lighting systems which have been build or modernized since the autumn 2005 are equipped with the electronic ballasts ELBALL that result in the energy saving:

1. The lowest light intensity during the night hours period when the traffic density significantly diminish.
2. Soft start electricity which prolong live time of the light source.
3. Stability of the voltage in huge range (constant luminous flux in spite of voltage drop).
4. Possibility of installing managing computer system for the registration, monitoring of main technical parameters of light source.

COST AND BENEFITS

Economical

The new networks are equipped with the electronic ballasts "ELBALL" resulting in the great energy savings. The calculations show that the average monthly energy cost of one luminary in the old system is 40% higher than in the new system managed with the ballast.

In 2006 PEC Jarocin replaced 301 old luminaries to new ones.

Energy saving: 94 101,83 kWh/year

Investment costs: 331 845,99 euro

Energy cost savings 11 340,35 euro/year

Payback period: 29 years

Environmental

There is a 40% reduction in the electricity consumption and CO₂ emissions and other exhaust gas as a result of the street lighting modernization in 2006. The reduction of Green House Gas emissions is very important for the climate change.

By reduction of the electric power and smoothing the induction impulse the life time of a light source can be considerably prolonged. The length of the lamp life time is very important because the utilization of the lamps causes huge environmental nuisance.

EVALUATION AND OUTLOOK

The representative of the KAPE S.A, the GreenLight National Contact Point is at all times in contact with the specialists at the Heat Company PEC Jarocin. In 2006 he once visited and evaluated the success of the modernization and the lighting electricity savings.

Since the PEC Jarocin has become the GreenLight partner, the company is very engaged with the promotion of the Programme. The plaque with the information about taking part in GreenLight programme is displayed in the main building next to the entrance. The specialists from the Heat Company in Jarocin have written many articles to the local and national newspapers and magazines. Those publications are also available on many information (newspaper) websites.

The representative of the PEC Jarocin took active participation in the International Conference "Energy efficient lighting – the perspective of development in Europe and in Poland" (on 20 June 2007 in Warsaw)

FURTHER INFORMATION

Name of the contact person: Henryk Kowalski
Position: Development expert
Organisation: PEC Sp. z o.o. w Jarocinie
Address: ul. Kasprzaka 1a, 63-200 Jarocin
Tel. +48 62 747 30 46, fax. +48 62 747 70 74
e-mail. pechenkow@wp.pl

Prepared by:

Contact information to the GreenLight National Contact Point

Ryszard Zwierchanowski
Antonina Kaniszewska
The Polish National Energy Conservation Agency (KAPE S.A.)
00-560 Warszawa, 35 Mokotowska Str.
+ 48 22 626 09 10
rzwierchanowski@kape.gov.pl
akaniszewska@kape.gov.pl

www.eu-greenlight.org

This GreenLight Good Practice Case Study was prepared under the New GreenLight project with a partial support of the European Commission. The sole responsibility for the content of this publication lies with the authors. The views expressed here do not necessarily reflect the views of the Commission. The European Commission is not responsible for any use that may be made of the information contained therein.

Intelligent Energy  Europe

