

Realised project street lighting: Kilkenny City Lighting Project, Carlow Kilkenny County

Project background and objectives

The street lighting infrastructure in Kilkenny County was established over the past 60-70 years. The area selected for this project was a representative sample of the 9,800 lamps throughout the county. Street lighting represents approximately 55 % of the municipality's electricity consumption. The light quality was variable and unsatisfactory. The cost of the upgrades was traditionally the barrier to change. In 2014, the regional partner and city partner successfully arranged a finance model for the project. The focus was put on refurbishing the public lighting on 5 streets & housing estates to test the model of incorporating energy into a traditional contract.

Project description

The main objective of the project was to improve the lighting standard and energy efficiency of the street lighting system with aesthetic considerations on historic and tourist attractions. The city partner was interested in using an EPRP (Energy Performance Related Payment) model. Through this type of EPC model, the city retained 10% of the project payment for one year until it was shown that the agreed energy savings were achieved. This model was assessed and disseminated to the decision makers at city level over many months. The decision was taken not to include the maintenance costs in the EPC contract. The city nevertheless benefits from a significant reduction of its maintenance costs due to the new energy efficient and low-maintenance LED lighting system. A grant of 50 % was achieved through an energy efficiency project application.



Facts

- **Population:** 95,419 (County), 24,423 (City)
- **Type of streets:** Urban – Residential and Public roads
- **EPC model:** Energy Performance Related Payment
- **Electricity cost savings:** 1,710 €/year
- **Reduction electricity consumption:** 15,611 kWh/year
- **CO₂ reduction:** 8.3 tons/year
- **Investment costs:**
 - 50,000 € (total investment)
 - 5,000 € (financed by the EPC project)
- **Subsidies:** 50 % SEAI (regional contracting programme)
- **EPC contract duration:** 1 year

Further information:

Carlow Kilkenny Energy Agency
T: +353 56 7790856
E: dkeogh@ckea.ie
www.ckea.ie

Realised project street lighting: Kilkenny City Lighting Project, Carlow Kilkenny County

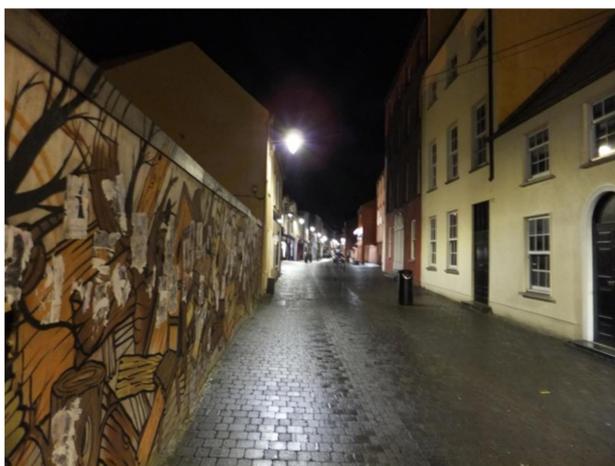
Streetlight data of the project	Before renovation	After renovation
Total installed electric capacity	6.6 kW	3 kW
Total number of lamps	59	59
Number of lighting points (luminaires)	59	59
Annual electricity consumption	27,743 kWh	12,132 kWh
Annual electricity costs	3,912 Euro	1,710 Euro
Annual maintenance costs	1,652 Euro	295 Euro

Results

Kilkenny County Council was one of the first to implement EPRP (a form of EPC) in Ireland. The city successfully completed a number of varying technology lamps with approved historical and modern lanterns in LED. This resulted in a successful upgrade to LED in 5 locations in the city. The municipality is very satisfied with the implementation process and outcome of the project and is pleased with the quality of the lighting. In 2016/17 it is proposed to complete the next phase of 1,500 luminaires in the county on its route to completing the 9,800 lamps within the coming 5-7 years using EPC from local electrical companies. Five of whom have engaged in the development of phase II 2016/17.

Support by the facilitation service

The facilitation service supported the municipality throughout the development of the EPC project by offering feedback and guidance on funding aspects as well as on the content of the EPC contract. Among others, the topic of deeper ESCO and contractor finance has been discussed and phase II will incorporate the contractor bringing finance to the project over a 10-15 year contract.



This case study was developed in the context of the EU-Project Streetlight-EPC which is supported by the Intelligent Energy Europe Programme. The sole responsibility for the content lies with the authors. It does not represent the opinion of the European Communities. The European Commission is not responsible for any use that may be made of the information contained therein.