



PPP PROJECT VILNIUS CITY STREET LIGHTING NETWORK RENOVATION

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23-May-12

EPEC's Public Sector Forum - 6 June 2012, Brussels



Aggregated power of illuminators / lamps

4.5 MW

Annual electricity consumption

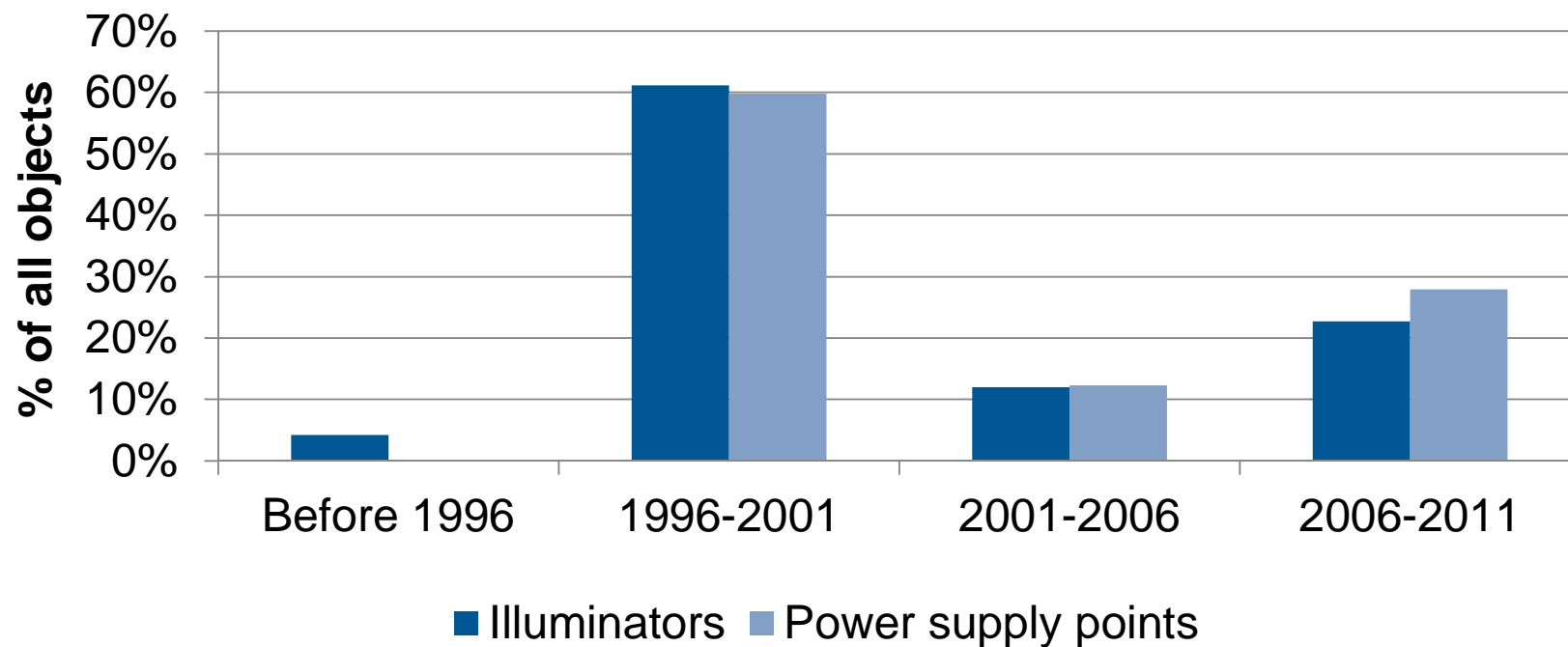
22.4 million kWh

Annual expenditure

EUR 3.77 M

Infrastructure	
Object	Quantity
Lamps	37,933
Illuminators	37,933
Spotlights	3,760
Lighting poles	23,964
Distribution boards	231
Power supply points	586
Power lines (km)	1,495

Installation year



Depreciation of infrastructure

86 %

Useful time of operation left

3 years

Objectives

1. Modernization of the system;
2. Increased safety on the streets;
3. Reduced CO₂ emissions;
4. Reduced expenditures;
5. Reduced energy consumption;
6. Implement power control system;
7. Ensure network maintenance.

Electricity saving

15 M kWh/year*

67 %

* includes up to 50% dimming.

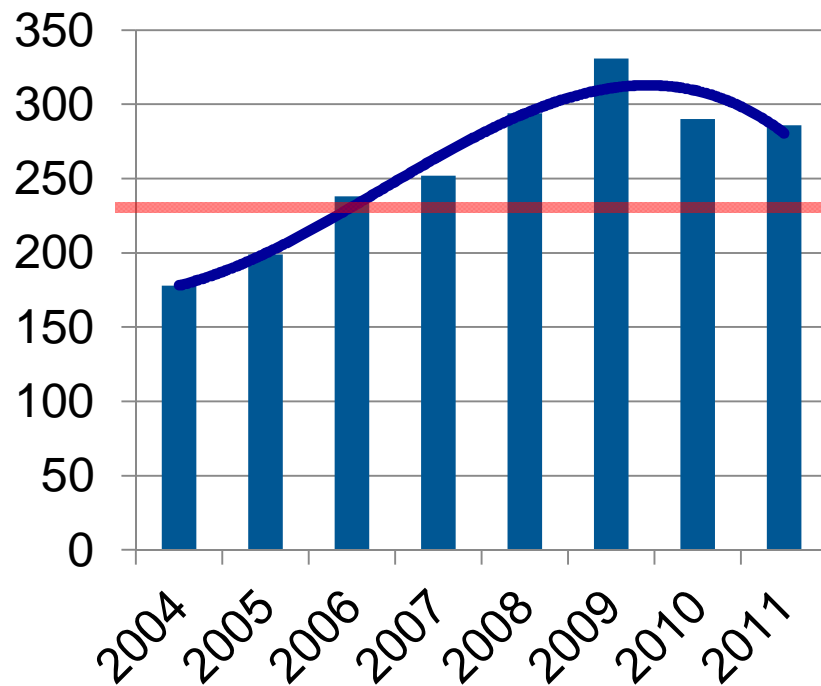
Cost benefit analysis: LED technology



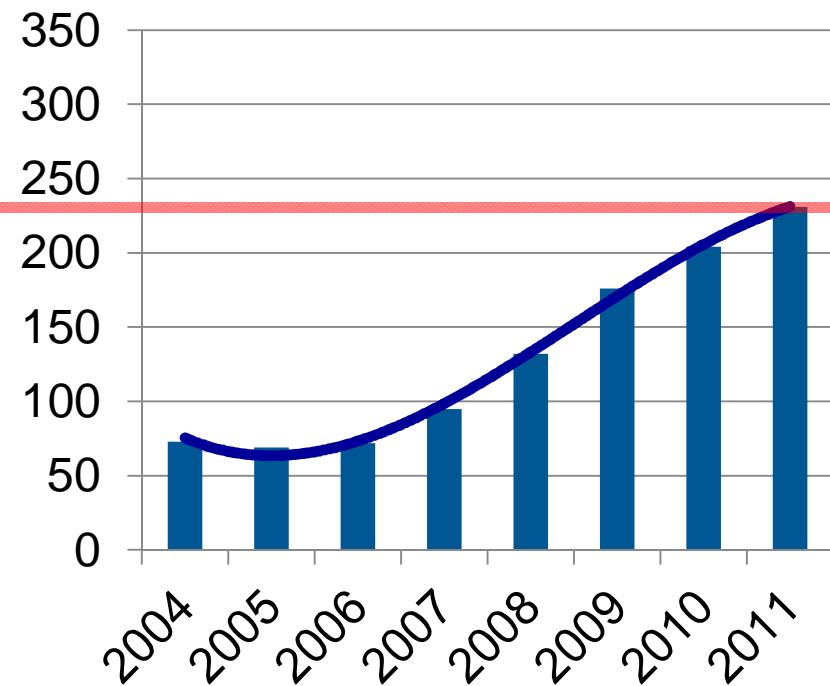
CO₂ emission reduction

7.8 t / year

Vilnius city municipality budget income, M EUR



Vilnius city municipality budget debt, M EUR



Budget debt / income ratio in 2011

81 %

Newspapers

“The municipality has repeatedly announced procurements to raise loans, but a lot of them failed - banks do not want to give money to the indebted city.”

Money

- Municipality is unable to fund the project neither from budget nor from debt.
- PPP payments + future expenditures on electricity can not exceed today's street lighting expenditures.

Time

- Maximum useful time of operation of LED lamps – 15-19 years (using lamps 4,000 hours per year).
- Minimum possible project duration.
- Maximum project duration – 25 years.
- Renovation duration – 4 years.

Quality

- Maximum possible renovation of street lighting network.
- Installation of power control system.

Scope of renovation

Object	Quantity
Illuminators + lamps	36,624
Lighting poles and hangers	7,000
Distribution boards	230
Power supply points	586
Power lines (km)	70
Central control system	1
Regional control system (dimmer + exposure sensor + traffic sensor + mobile communication system with mobile internet access).	586

Overview

- Maximum scope
- Investment: EUR 42.2 M
- Project value: EUR 126.5 M
- Duration: 15 years
- PPP payment: EUR 11.5 M
- First payment after renovation.

Compliance with constraints

MONEY	PAYMENTS TOO LARGE
TIME	OK
QUALITY	OK

Changes in scope

Lighting poles, hangers and power lines removed out of scope.
Alternative funding: EU funding: JESSICA, ELENA, JASPERS.

Scope

Object	Quantity
Illuminators + lamps	36,624
Lighting poles and hangers	7,000
Distribution boards	230
Power supply points	586
Power lines (km)	70
Central control system	1
Regional control system	586

Changes in time

Project duration – 19 years.

Overview

- Reduced scope
- Investment: EUR 26.7 M
- Project value: EUR 112.5 M
- Duration: 19 years
- PPP payment: EUR 7.5 M
- First payment after renovation.

Compliance with constraints

MONEY	PAYMENTS TOO LARGE
TIME	OK
QUALITY	OK

Changes in financial structure

Involving 50% subsidies from Special Climate Change Fund Program for reduced CO₂ emissions

Scope

Object	Quantity
Illuminators + lamps	36,624
Distribution boards	230
Power supply points	586
Central control system	1
Regional control system	586

Changes in time

First PPP payment at the first year of the project.

Overview

- Reduced scope
- Investment: EUR 26.7 M
- Subsidy: EUR 13.7 M
- Project value: EUR 90.5 M
- Duration: 19 years
- PPP payment: EUR 3.7 M
- First payment at the first year of the project.

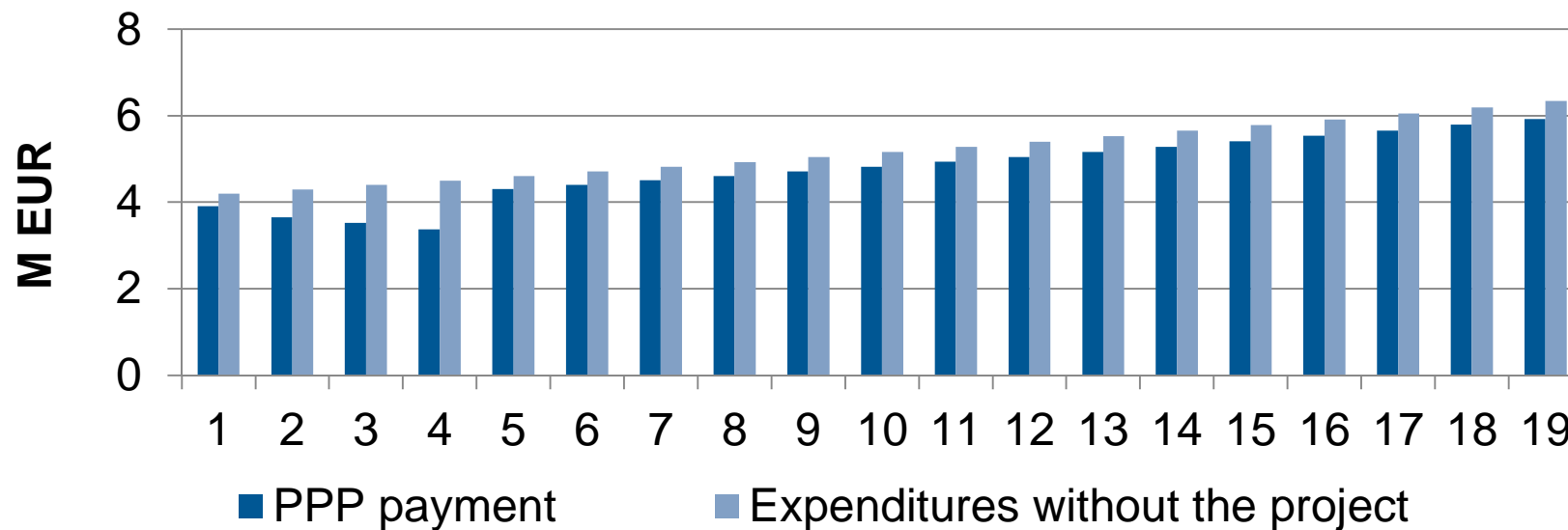
Compliance with constraints

MONEY	OK
TIME	OK
QUALITY	OK

Scope

Object	Quantity
Illuminators + lamps	36,624
Distribution boards	230
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Central control system	1
Regional control system	586

Availability



Strategic

Feasible

Public sector value for money

6.6%

Nominal private investor IRR

12.25%

Bankability

High interest from the banks (EIB; NIB incl.)

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