Public Street Lighting in São Paulo

ESMAP Knowledge Exchange Forum: Livable and Energy Efficient Cities
Mobilizing Resources and Engaging with the Private Sector

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São Paulo - Highlights

2nd most important city concerning the attractiveness of inward investments (FDI Intelligence)

The biggest city of Southern hemisphere with 11.9 million people (SPC & VB)

High Level of HDI - 0.805 (UNDP)

Most promising financial center in 2012 (The Banker)

Headquarter of BM&Fbovespa – one of the biggest stock exchange in market value in the world (Agência Brasil)

12nd richest city in the world (by GDP) (Brookings Institute)
Secretariat of Service has been working on several initiatives to make São Paulo a city more livable and energy efficient

**Public Street Lighting**
A Public-Private Partnership to the modernization and expansion of the biggest Public Lighting Park in Latin America, with more than 620,000 lamps.

**Solid Waste Management**
Increasing level of recycling (4% to 10%) from the universal selective collection, with 4 Mechanized Processing Units and 3 Ecoparks with power generation.

**Public Wi-Fi**
Open and free WiFi with high speed – in 120 squares and public parks. Partnership with the Private Sector to extend the service to more 120 square and 700 bus stops.

**Fab-Lab**
Implementation of 12 advanced laboratories of digital manufacturing. Fab-labs (fabrication labs) focused on the production of equipment with technology destined to those with disabilities.
In the last 2 years, the Secretariat has been working to improve the service in Public Lighting.

- Implementation of more than 47,000 new lamps
- Modernization of more than 198,000 lights
- Between 2011 and 2014, reducing in 75% the annual average of registered complaints

VIADUTO DO CHÁ
323 LED lamps installed

Avenida 23 de Maio
688 LED lamps installed
The PPP project in Public Lighting aims to promote the improvement in a long term

- One of the biggest and pioneering concessions concerning Public Street Lighting in the world.

- Adoption of **sustainable practices**, focused on energy efficient, integrated to other municipal public policies.

- Focused on **the level of the service** (light quality).

- **Complete Service Concession**, including modernization, expansion, operation and maintenance of the whole street lighting network.

- **Remote monitoring and management** of the entire public street lighting network.

- **Service universalization** throughout the city.
The project structuring focused on the dialogue with civil society

Expression of interest attracted several international groups/players

34 APPROVED

11 DELIVERED

597 CONTRIBUTIONS

+300 PARTICIPANTS
### Project Data

<table>
<thead>
<tr>
<th>Deadline</th>
<th>20 years</th>
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<tbody>
<tr>
<td>Maximum</td>
<td>€ 8.7 million/month (€ 104 million/year)</td>
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<tr>
<td>Consideration</td>
<td></td>
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<tr>
<td>Main</td>
<td>Modernization of 620,000 lamps</td>
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<tr>
<td>Characteristic</td>
<td>Expansion of 76,000 lamps in the first 5 years</td>
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<td></td>
<td>Expansion of 1,300 lamps/year after the 5th year</td>
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<td>Development of a operational control center</td>
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<td>Creation of a remote control system within the entire network</td>
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<td>Investment</td>
<td>€ 360 million in the first 5 years</td>
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<td>(Capital</td>
<td>€ 570 million through the concession</td>
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<td>Expenditure)</td>
<td></td>
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<tr>
<td>Concession</td>
<td>International Public Competition</td>
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<tr>
<td>Details</td>
<td>Contract based on performance</td>
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<td>Risk allocation</td>
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<td>Technology flexibility (LED or superior technology)</td>
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Key challenges

- Development of a dynamic and structured interaction between the public and private sectors during the project structuring period.
- Execution complexity of the project reasoned by scale and coverage.
- Structuring of projects facing the lack of initiatives similar in size and coverage to be used as a reference.
- Election of selection standards to choose a better prepared proponent to deal with the complexity of the project.
- Identification and allocation of risks in the PPP contract.
How the project turns São Paulo into a more livable and efficient city

**Quality of Life**
- Light pollution
- Quality lighting in urban spaces

**Economy**
- Reduction of government expenses
- Investment increase

**Environment**
- Reduction of CO₂ emissions
- Adoption of technology free of heavy metals

**Energy Efficiency**
- Reduction of +50% in energy consumption
- Increase of useful life of lamps (+10 years)

**Smart City**
- Use of lighting grids as a platform for the installing smart services

**Safety**
- Reduction of crime
- Reduction of accidents overnight
23 de Maio Avenue during the process of modernizing the public lighting grids
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