



SERRA TALHADA,

MAY, 2022

Modernization of the Public Lighting Park

Previous history

The city of Serra Talhada, located in the state of Pernambuco, continues to implement environmentally friendly practices. Since 2018, the municipality has been a member of the Global Covenant of Mayors for Climate and Energy, a program funded by the European Union.

Project Description

Through the Municipal Secretariat of Public Services, the city has replaced its traditional light fixtures with LED lamps, which significantly reduce energy consumption compared to incandescent or fluorescent lighting and have a longer lifespan.

In 2020, 1,000 lamps were replaced as part of the 'Lighted City, Safe City' program. By August 2021, an additional 1,000 lamps were installed, with an investment of R\$ 1,000,000.00. These actions are estimated to save 345 MWh of energy and reduce emissions by 156.23 tCO2e per year. In addition to energy savings and emissions reduction, this initiative provides enhanced brightness and durability, adding value to urban spaces and increasing nighttime safety perception.

Relevant data

- Population: 87,467
- GCoM Member since: 2018
- Project name: Modernization of the Public Lighting Park
- Project Category: Mitigation
- Year of implementation: 2020
- Financing: In the first stage there was financing from Banco do Brasil. And in the second, there was a partnership between the city government and NEOENERGIA



SOLUTIONS

Implementation and Financing

In the first stage, the project was carried out through the "Illuminated City, Safe City" program. In the second stage a partnership between the municipality and NEOENERGIA was carried out. A total of 1,568 light bulbs will be installed by July 2022.

Conventional traffic lights were also replaced by LED technology. Installation and replacement of reflectors in courts and squares.

Regarding the continuity of the project, it is aligned with the emission reduction goals of the Local Climate Action Plan, more precisely of GOAL 4, which says: "By 2024 - Adopt 100% of LED lamps in the public lighting park."

It is also aligned with Sustainable Development Goals (SDGs) 7, 9, 11 and 13.

Thus, the related SDGs are:

- 7 - Clean and Affordable Energy
- 9 - Industry, Innovation and Infrastructure
- 11 - Sustainable Cities and Communities
- 13 - Action Against Global Climate Change

The municipality is interested in doing more technical feasibility studies of new technologies such as Solar LED, in order to ensure a more sustainable use of energy. The goal is to improve people's lives by ensuring greater comfort and quality of life. It is also part of the management's climate policy and environmental agenda of Serra Talhada, foreseen in the Local Plan of Climate Action.

Funding

For the first stage of this project, financing was obtained from Banco do Brasil. For the second stage, a partnership was made through a project to increase energy efficiency with Neoenergia.



"The advantages of using LED in public lighting are not limited to economic gains, but also bring environmental benefits. Because it has a longer useful life, it also impacts the safety of the people who work in the activity, since it demands less maintenance and consequently less exposure to risk. And the best result achieved has been the satisfaction of the people of Serratalthadenses who can now enjoy a better lit city."

Mayor Márcia Conrado

RESULTS AND LESSONS LEARNED

Main results

- In the first stage of the project, with the installation of 2000 lamps that took place between 2020 and 2021, there was an annual reduction of 156,230 tCO₂e.
- With the second stage of the project, which will begin in June and end in July 2022, there will be a replacement of 1568 lamps and an estimated annual reduction of 135,930 tCO₂e. The total annual reduction expected is 292.16 tCO₂e.

Lessons Learned

- Adaptation to a new, more efficient technology is necessary, also considering the increase in the price of electricity;
- No way back, since the trend is to use LED technology;
- Less exposure to risk, since there is less maintenance. About 3 times less.



"The benefits of this type of technology go beyond the economic aspect. This device is free of heavy metals and is composed of recyclable materials, besides having a prolonged useful life, reducing the need to dispose of these materials. Besides, it is easy to install, since most of the components are reused to replace the lamps"

Marcos Melo, Executive Secretary of Public Lighting

Acknowledgments

We would like to thank the Municipality of Serra Talhada for sharing this case study

The GCoM encourages local government signatories to share their climate action. If you have a case study or successful project, please contact us by email or other channels.

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