Energy Efficiency Street Lighting in Panaji

Expected project CAPEX: 5'063'303 €

Mandating Authority: The Corporation of the City of Panaji

Summary

The purpose of the project is to improve the existing street lighting infrastructure in order to make Panaji a well-lit city with a modern and reliable street lighting system. It has two main features: 1. Complete redesigning of street light infrastructure: Replacement of existing high energy consuming fitting 5560 to Energy efficient LED street lights along with installation of new poles, underground cables, power conditioning panels and smart electricity meters with wireless communication protocols and supported with real time monitoring and customer grievances redressal cell. 2. Design and implementation of LED street lights adhering to the Indian Standard SP-72 National Lighting Codes. The project is expected to increase the access to energy efficient street lighting in the city. It will not only beautify the city but also ensure safety of the local people. It will ensure safe and efficient operation and maintenance of street lights by reducing annual energy consumption and operation and maintenance cost. It will improve the illuminance level and increase the life of street light fixtures. It will improve the power quality of streetlights. Also, the project will reduce the street light connected load to 50% resulting in energy savings. The expected reduction in bill due to energy savings is 103,362.59 USD per annum and reduction due to operation & maintenance is 143,822.25 USD per annum.

Location and population
Panaji, Goa, India
114,759 inh.

Social and environmental impact

The project is expected to increase the access to energy efficient street lighting in the city. It will not only beautify the city but also ensure safety of the local people. It will ensure safe and efficient operation and maintenance of street lights by reducing annual energy consumption and operation and maintenance cost. It will improve the illuminance level and increase the life of street light fixtures. It will improve the power quality of streetlights. Also, the project will reduce the street light connected load to 50% resulting in energy savings. The expected reduction in bill due to energy savings is 103,362.59 USD per annum and reduction due to operation & maintenance is 143,822.25 USD per annum.

Main stakeholders

(1) The Corporation of the City of Panaji
(2) Goa State Infrastructure Development Corporation Limited (GSIDC)
(3) DISCOM
(4) Prospective private developers/ESCO’s
**Project maturity (IFC / World Bank Categories)**

STAGE 1: Concept Development, Site identification

STAGE 2: Pre-Feasibility Studies

STAGE 3: Feasibility Studies

STAGE 4: Permitting / Financing / Contracts

STAGE 5: Engineering/Construction/Commercial Operation

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**STAGE 1: Concept Development, Site identification**

Number of Lighting points: 5560

Mapping of the street lighting system: YES

Current installation

Expected energy / expenses savings

52% Energy Savings

Source of electricity: Grid connected

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**STAGE 2: Pre-Feasibility Studies**

Pre-feasibility study

YES

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**STAGE 3: Feasibility Studies**

Feasibility study

YES

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**STAGE 4: Permitting / Financing / Contracts**

Contract with municipality

NO

Building permits signed

Environmental impact study

YES

Identified sources of fundings

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**STAGE 5: Engineering / Construction / Commercial Operation**

Engineering, Procurement and Construction Contractor

Operation and Maintenance Contractor

Comments