LED

Expected project CAPEX: 1'234'600 €

Mandating Authority:
5 towns (Klawer, Vanrhynsdorp, Lutzville, Vredendal and Nuwerus) in Matzikama Municipality

Summary
As part of our dedication to participate in delivering climate objectives, Matzikama Municipality has prioritised the replacement of all old technology for streetlighting, i.e. using MV and HPS lamps, with new LED type streetlighting. This replacement exercise is planned to be done in all 5 towns that are part of Matzikama Municipality.

Location and population
5 towns (Klawer, Vanrhynsdorp, Lutzville, Vredendal and Nuwerus) in Matzikama Municipality, Western Cape, South Africa

Social and environmental impact
Positive environmental impact through energy savings by using a lamp technology that will require significantly less power. The use of local labour thereby increasing economic opportunities into the communities will have a positive contribution to the social conditions.

Main stakeholders
Matzikama Municipality, local residents, service providers, suppliers, manufacturers and local labour personnel

Mandating Authority:
5 towns (Klawer, Vanrhynsdorp, Lutzville, Vredendal and Nuwerus) in Matzikama Municipality, Western Cape, South Africa
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

STAGE 1: Concept Development, Site identification

Number of Lighting points:
TOTAL: 3352: (Klawer: 678 / Vanrhynsdorp: 517 / Lutzville: 356 / Vredendal: 1604 / Nuwerus: 197)

Mapping of the street lighting system:
NO (To be done during execution of the replacement project)

Current installation

Expected energy / expenses savings
TOTAL: 1,471,668 kWh/year savings / R 2,803,000 savings per year (Klawer: 268 206 kWh/year savings, R510 000 savings per year / Vanrhynsdorp: 267 333 kWh/year savings, R508 000 savings per year / Lutzville: 200 415 kWh/year savings, R380 000 savings per year / Vredendal: 626 769 kWh/year savings, R1 200 000 savings per year / Nuwerus: 108 945 kWh/year savings, R205 000 savings per year)

Source of electricity:
LED lamps in correct luminaires, Grid connected

STAGE 2: Pre-Feasibility Studies

Pre-feasibility study

Yes, the municipality has developed a comprehensive inventory of all its streetlights

Feasibility study

Yes, software was used to determine the correct lamp replacement methodologies for the existing units, with associated costs for replacement calculated

STAGE 3: Feasibility Studies

Contract with municipality
NO

Building permits signed
N/A

Environmental impact study
N/A

Identified sources of fundings

N/A

STAGE 4: Permitting / Financing / Contracts

Engineering, Procurement and Construction Contractor
Reputable service providers, suppliers and manufacturers will be used after the completion of a public tender process

Operation and Maintenance Contractor
All operation and maintenance to be done by Matzikama Municipality

Comments

Project anticipated to be done as part of the municipal budget programme using procurement processes as stipulated under current local government legislation. Project can be implemented 1 town at a time (as 5 individual projects or for several towns as one project).