LED Street Lighting Points

Expected project CAPEX: 2'175'000 €

Mandating Authority: The Municipal Federation of the Casa of Zgharta

Summary
The Municipal Federation of the Casa of Zgharta manages developmental issues of common interest to its constituting members, soon to be 32 Municipalities. The territory ranges from the plains of Majdlaya (100 m altitude) to the peaks of Ehden (town at 1450 m, wilderness range reaching 2900 m altitude). In its quest for sustainability and financial stability, the Federation has decided to convert all public lighting points to LED. This application concerns the territory of the Casa, excluding the city of Zgharta, covered under a separate application.

Enhanced living conditions and night time security; Improved public finances and shifting of expenditures to social projects; Increased awareness on importance of energy savings; Reduced emissions and mitigation costs; Reduced reliance on imported fuel.

Location and population
The Casa (Administrative District) of Zgharta, Lebanon
90'000 inh.

Social and environmental impact
Enhanced living conditions and night time security; Improved public finances and shifting of expenditures to social projects; Increased awareness on importance of energy savings; Reduced emissions and mitigation costs; Reduced reliance on imported fuel.

Main stakeholders
The Municipal Federation of the Casa of Zgharta / Citizens of the member towns and villages
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:**
6400 (380 stand-alone solar PV, 6020 LED to replace HPS (of which 65% 50W, 35% 90W))

**Mapping of the street lighting system:** Yes

**Current installation**
When grid-connected, 40% energy is saved using LED v/s HPS for same lighting levels.

**Expected energy / expenses savings**
The vast majority of the current public and heritage site lighting uses high pressure sodium lamps (HPS) and is grid connected.

**Source of electricity:** Grid connected

STAGE 2: Pre-Feasibility Studies

**Pre-feasibility study**
YES a check for reasonableness and pre-feasibility study is available

STAGE 3: Feasibility Studies

**Feasibility study**
No

STAGE 4: Permitting / Financing / Contracts

**Contract with municipality**
?

**Building permits signed**
?

**Environmental impact study**
No

**Identified sources of fundings**
?

STAGE 5: Engineering / Construction / Commercial Operation

**Engineering, Procurement and Construction Contractor**
?

**Operation and Maintenance Contractor**
?

**Comments**
This application is filed for a simple change of lighting points from high pressure sodium to LED, assuming that 94% of the points will be grid fed. Should the budget exceed available funds, the Federation can prioritize its actions and identify clusters of towns/villages eligible for priority investment.