

## Street Lighting project in Visakhapatnam —A case study

### EESL's Business Model

The street lighting project in Visakhapatnam was completed within a strict time schedule, with an investment of about USD 9.6 million by EESL. Incorporating an innovative financial model, the entire investment capital was borne by EESL and recovery of the same was done through energy savings and maintenance costs.

The burden of maintenance was taken from GVMC's shoulders as EESL holds the onus of maintaining the lights for a period of seven years.

### Social audit of our performance

EESL conducted a dip-stick survey of the people in nearby areas to assess the impact of new street lights. The outreach highlighted that good lighting levels had brought a feeling of security amongst people.

Officials of the local police spoke of the enhanced safety brought about by brighter lights and reduced dark spots. They confirmed that they are now able to efficiently control instances of rash driving.

Residents spoke of roads looking more beautiful compared to the conventional yellow lights.





Lighting up the city in cyclone aftermath

In October 2014, the State of Andhra Pradesh in southern India faced the Hud Hud Cyclone, which caused extensive infrastructural damage apart from loss of life. In a bid to revive the infrastructure of the city, the Greater Visakhapatnam Municipal Corporation (GVMC) and Energy Efficiency Services Limited (EESL) signed an agreement for providing LED street lights in the city.

EESL replaced the defunct traditional lightings with about 90,000 energy efficient street lights and reduced the power bills significantly. EESL completed installation of 90,000 street lights in three months’ time.

Savings from the project

- Conversion of 90,000 street lights led to a 50% reduction in energy consumption by the municipality
- Drastic reduction in connected load in street lights – from 7.9 MW to 3.9 MW
- Annual cost savings of USD 4.7 million for the municipality



The reduction in energy consumption

EESL’s LED street lighting brought about a drastic improvement in lighting infrastructure of the state. Prior to the installation, GVMC was consuming 50% more energy in their street lighting system. This energy saved was instrumental in allowing the ULB to invest in other avenues for better performance.

A snapshot of cost & energy savings are mentioned below:

Before LED Installation				After LED Installation			
No.	Month	Units in Hundred Thousand (MW)	Amount in Hundred Thousand (USD)	Month	Units in Hundred Thousand ( MW)	Amount in Hundred Thousand (USD)	% Cost Savings
1	Jan-14	23.8	2.9	Jan-15	12.7	1.4	52.18
2	Feb-14	23.89	2.8	Feb-15	12.72	1.3	49
3	Mar-14	17.08	2.6	Mar-15	11.85	1.4	48.19
Total		64.78	8.4	--	37.27	4.2	50%