

# City of Key West Roadway Lighting

## Current Status:

Keys Energy (KEYS) stocks, installs and maintains street lights for the city of Key West via a City Commission and Utility Board agreement titled "Traffic Signal and Street Light Maintenance Agreement," dated May 18, 2011.

There are 2,230 total street lights within city of Key West rights-of-way. They vary in size and type (see chart below).

Owner	Size & Type	Quantity
City of Key West	100 watt sodium vapor	1156
	200 watt sodium vapor	721
	400 watt sodium vapor	96
	400 mercury vapor	5
	175 mercury vapor	245
	250 mercury vapor	7
	<b>TOTAL</b>	<b>2230</b>

## Costs:

When a new street light or fixture is installed, the city pays no capital or initial cost. The initial cost is paid by the utility company, standard practice in the industry. KEYS amortizes the initial fixture and installment cost over the expected life of the light, and recovers it as a part of the city's monthly utility bill.

The monthly cost per light fee has three (3) components:

1. Recovery of the initial fixture and installment cost amortized over the expected life of the light
2. Anticipated operating & maintenance expenses over the life of the light
3. Cost of energy (KWH used per month billed at the KWH rate approved by the Public Service Commission)

The typical monthly bill for street lights in Key West is approximately - \$28,000

## **Meadows Test Project:**

KEYS Energy, as an active participant in the Lighting Task Force (LTF) Committee, assisted with a two year evaluation of multiple LED street lighting technology

The LTF selected the Beta LEDway fixture through an extensive evaluation process of various products

KEYS committed \$25K for a more extensive field test of the selected LED light; the funds are available now, with no dollars needed from the city for the test program

The LTF is recommending the installation of 25 LED street lights in the Meadows subdivision

Existing HPS (High Process Sodium) light will be replaced with LED fixtures

Because the LED fixtures have a much lower wattage than the existing fixtures they will be replacing, the city should realize a significant savings in the monthly fees for the 25 lights in the test area, contributing to a reduction of the city's carbon footprint.

- Replace 100 watt HPS with 34 watt LED
  - 10% cost reduction in rental rate
  - 65% energy reduction
- Replace 200 watt HPS with 46 watt LED
  - 26% cost reduction in rental rate
  - 75% energy reduction

The Meadows test will allow KEYS to evaluate the accuracy of claims made by the manufacturer as to ease of maintenance and energy savings— a good first step before any city-wide conversion to LEDs is planned.

Prepared for the Key West City Commission  
by the  
Lighting Task Force of the Pedestrian Action Committee  
with the help of KEYS Energy Services  
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