



City of Coral Gables
CITY COMMISSION MEETING
December 8, 2015

ITEM TITLE:

A presentation of LED Streetlight Conversion Methodology that will provide the City with an energy efficient lighting solution, consistent with its sustainability goals.

DEPARTMENT HEAD RECOMMENDATION:

Proceed with Phase I Conversion and development of a Request for Proposals (RFP).

BRIEF HISTORY:

The City Commission requested staff to develop a methodology to convert existing streetlights to light emitting diode (LED) technology in support of becoming a more sustainable Coral Gables. The City's existing streetlight fixture inventory is composed primarily of metal halide and high pressure sodium vapor. These light fixtures are subject to frequent outages, require frequent maintenance and are energy inefficient.

To address the issues associated with maintenance and energy consumption, staff recommends converting existing light fixtures to LED in two phases. The first phase will convert City-owned and maintained lights and the second phase will convert the lights owned and/or maintained by Florida Power and Electric.

LEDs provide better, clearer, and more consistent light quality that makes Coral Gables' streets safer through:

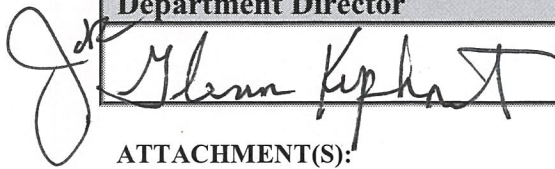
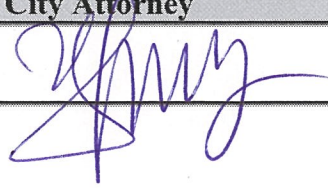
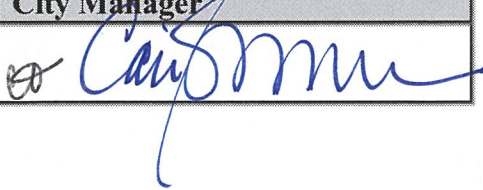
- Fewer streetlight outages as LEDs have a life expectancy of 15 years, compared to 5-6 years of mercury vapor streetlights.
- LED lights are available in a range of colors including natural warmer feeling lights.
- Minimization of light trespass onto homes and businesses by the "aiming" of LED fixtures.
- More consistent distribution of light resulting in fewer dark spots. Traditional light sources typically provide too much light in the area directly under the pole. This ensures that the outer areas surrounding the pole are well lit. Light from each LED can be guided with secondary optics to spread the light more evenly and ensure clearer, consistent lighting at all distances from the pole.

Reduced Costs and Environmental Impacts

- Up to 60 percent decrease in energy use and carbon emissions from LED lamps.
- LED lamps last up to three times longer than traditional streetlights, reducing replacement costs significantly.
- LEDs do not contain mercury or lead and do not release poisonous gases if damaged.

This first phase will include the development of an RFP and funding mechanism.

APPROVED BY:

Department Director	City Attorney	City Manager
		

ATTACHMENT(S):

- 1. Presentation