



# GRU Lighting Programs

October 2013

# Lighting Programs

## GRU Offers 2 Lighting Programs

- Rental Lighting - offered to residential / commercial customers and private roadway applications
- Public Roadway Lighting - offered to Public Agencies





# GRU Rental Light Program

# Rental Lighting

Rental lighting consist of 2 rate structures

- Standard rental rate. Rate includes equipment purchase, installation, maintenance and energy charges
- Contributed rental rate. Rate includes only maintenance and energy. Fixture purchase and installation cost paid for up front by others

# Rental Light Program

- Lights can be rented by any GRU residential or commercial customer within the Electric Service Territory
- Typical Applications
  - Commercial Endeavors
  - Apartment Complexes
  - Residential Properties
  - Private Roadways



# Rental Light Program

- **Located on customer's property**
  - **May be attached to an existing GRU distribution pole or roadway lighting pole (no additional cost)**
  - **May be attached to a dedicated standard or decorative pole at an additional cost**

# Rental Light Program

## Types of Lights Installed:

- Area Lights
- Flood Lights
- Decorative Lights
- Roadway Lights
- Pedestrian Scale Lights

## Light sources

- High Pressure Sodium (HPS)
- Metal Halide

# Rental Light Program

- Customer signs a 5 – year rental agreement
- Engineering meets with customer to determine location of light and / or pole
- Engineering and customer determine type of light to be rented \*
- GRU installs and maintains light

\* Any photometric requirements designed by professional engineer



# Rental Light Program

## Quantities of Lights (August 2013)

### Rental

Standard	13,535
Contributed	<u>112</u>
<b>Total Rental Lights</b>	<b>13,647</b>
<b>Yearly Revenue</b>	<b>\$2,030,073 *</b>

\*does not include fuel adjustment or pole rental charges



# GRU Public Roadway Light Program



# Public Roadway Lighting

Public roadway lighting consist of 2 rate structures

- Public Standard Rate. Rate includes equipment purchase, installation, maintenance and energy charges.
- Public Contributed Rate. Rate includes only maintenance and energy. Fixture purchase and installation cost paid for up front by others.



# Public Light Program

Currently maintain 35 different High Intensity Discharge decorative and non-decorative light fixtures

Types include:

- Pedestrian scale decorative lights
- Decorative lights
- roadway decorative fixtures
- Traditional roadway fixtures
- Flood Lights

Light Sources

- High Pressure Sodium (HPS)
- Metal Halide

# Public Light Program

Light fixtures currently offered for roadway applications are

- High Pressure Sodium (Local and DOT roadways)
- Mercury Vapor and Metal Halide in the downtown area only - Area Lighting (mostly pedestrian scale decorative fixtures)

# Public Light Program

## Quantities of Lights (August 2013)

### City

Standard rate	11,642
Contributed rate	<u>1,309</u>
<b>Total City Lights</b>	<b>12,951</b>
<b>Yearly Revenue</b>	<b>\$1,496,073 *</b>

\*does not include fuel adjustment or pole rental charges



# Public Light Program

## Quantities of Lights (August 2013)

### County

Standard rate	4,801
Contributed rate	<u>457</u>
<b>Total County Lights</b>	<b>5,258</b>
<b>Yearly Revenue</b>	<b>\$522,222 *</b>

\*does not include fuel adjustment or pole rental charges

# Public Light Program

Quantities of roadway lights in City (August 2013)

	<u>Contributed</u>	<u>Un-Contributed</u>	<u>Total</u>
100 watt HPS	36	6416	6452
150 watt HPS	236	2326	2562
250 watt HPS	449	1883	2332
400 watt HPS	86	51	137
<b>Grand Total</b>	<b>807</b>	<b>10,676</b>	<b>11,483</b>



# LED Lighting Discussion



# LED Lighting

Lighting rates are made up of 3 major components:

- Equipment installation and purchase
- Life cycle maintenance
- Energy consumption

Amortized over lifecycle of fixture  
(typical 15 years)

# LED Lighting

## LED Lighting Considerations

- **Cost of Equipment and Installation**
- **Life Expectancy**
- **Maintenance costs (cyclical and non cyclical)**
- **Heat (dissipation) , Corrosion (humidity) and Surge Suppression (withstand Lightning)**
- **Energy Consumption**
- **Light characteristics**
- **Lighting design requirements (IES/etc.)**
- **FDOT Requirements / Acceptance**

# LED Lighting

## Installation and purchase cost Fixture purchase

- **Installation and Removal Cost (Labor and Equipment)**
- **Other Materials (photocell, wire, connectors, mounting brackets)**



# LED Lighting

## Cyclical Maintenance Cost

- Routine maintenance (photocell replacement, cleaning)

## Non Cyclical Cost

- Non - Warranty failed fixture repair and replacement (5%)
- Warranty Fixture repair and replacement

# LED Lighting

## Energy Usage (per month)

HPS Equivalent	HPS	LED	Diff
100 w	41 \$3.12	19.1 \$1.45	21.9 kwh \$1.67
150 w	62 \$4.71	36.4 \$2.77	25.6 kwh \$1.94
250 w	103 \$7.83	60.5 \$4.60	42.5 kwh \$3.23
400 w	164 \$12.46	97.2 \$7.39	66.8 kwh \$5.07

(GS1 service rate 7.6 cents / kwh)  
(does not include fuel adjustment)

# Questions