

## **MEMORANDUM**

**To:** Mayor and City Council

**From:** Michael Smith, Public Works Director

**Date:** March 28, 2016

**Subject:** **Approval of Georgia Power LED Roadway Light Initiative**

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### **ITEM DESCRIPTION**

Approval of Georgia Power LED Roadway Light Initiative

### **BACKGROUND**

At the March 14, 2016 City Council Meeting representatives from Georgia Power presented information on its LED roadway lighting initiative. Under this initiative the power company would convert the city's cobra head streetlights to an LED bulb. The benefits of this program to the city would be better light conditions, greater energy efficiency and longer bulb life. The lights can also be remotely monitored by Georgia Power to detect when bulbs burn out.

There is no upfront cost to the city for the LED conversion. The monthly lease and maintenance cost for 2,221 lights is expected to increase from \$24,486.24 to \$24,682.37

### **RECOMMENDED ACTION**

Staff recommends approval of the LED streetlight conversion.

# Governmental Regulated LED Roadway Lights Authorization



Customer Legal Name Dunwoody City of DBA N/A

Service Address Roadway Lighting County DeKalb

Mailing Address Suite 250 41 Perimeter Center East Dunwoody ,Ga. 30346

Email N/A Tel # 678-382-6700 Alt Tel \_\_\_\_\_

Tax ID Same \_\_\_\_\_ Business Description City/County Government

Existing Customer Yes ☒ No ☐ If Yes, the current Account Number \_\_\_\_\_

Note: LED Roadway lights must be set up on a separate account

## Equipment (excludes any applicable sales taxes)

Action	Qty.	Lumens	M (TOU) / UM	Type	Description	Estimated Monthly Regulated Charge
(1) INS	1,955	5,000	UM	RW	LED Roadway Fixture @ \$10.65	\$20,820.75
(2) INS	211	8,500	UM	RW	LED Roadway Fixture@ \$13.62	\$2,873.82
(3) INS	55	14,000	UM	RW	LED Roadway Fixture@ \$17.96	\$987.80
(4)						
(5)						

Install (INS)  
Removal (REM)

(M)(TOU) -  
Metered Time  
of Use  
(UM) -  
Unmetered

Roadway (RW)  
Post Top (PT)  
Wall Pack (WP)

Estimated Total

\$24,682.37

## Project Notes:

03993-10073

69336-75011

1 of 2 Documents

The estimated monthly regulated charge is based on Georgia Public Service Commission (PSC) approved tariffs in place at the signing of this document. Customer understands that actual usage and future PSC approved tariff changes could change the estimated total. Customer agrees billing is based upon the number of lights attached to the service point(s).

Customer Authorized Signature	Date	Georgia Power Company	Date
Print Name _____	_____	Print Name Jerry Cook	_____
Print Title _____	_____	Print Account Executive	_____

## GPC Internal Use Only

INS / REM	UNREG/ REG	HID / LED	RETRO/ NEW/RWC	PPID#
DWE _____	R	LED	Repl	_____
DWE _____	R	LED	Repl	Rev Class: Street & Hwy <input type="checkbox"/> Other <input type="checkbox"/>
DWE _____	R	LED	Repl	Region _____
DWE _____	R	LED	Repl	Construction: Existing <input type="checkbox"/> Other <input type="checkbox"/>
DWE _____	R	LED	Repl	_____

If an existing customer, list account number if it is not shown above: \_\_\_\_\_

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Note: LED Roadway lights must be set up on a separate account

## Equipment (excludes any applicable sales taxes)

Action	Qty.	Lumens	M (TOU) / UM	Type	Description	Estimated Monthly Regulated Charge
(1) REM	1,955		UM	HPS	100 Watt Cobra Head Fixture@ \$10.55	-\$20,625.25
(2) REM	211		UM	HPS	150 Watt Cobra Head Fixture@ \$13.58	-\$2,865.38
(3) REM	54		UM	HPS	250 Watt Cobra Head Fixtures@ \$17.96	-\$969.84
(4) REM	1		UM	MV	400 Watt Cobra Head Fixtures @ 25.77	-\$25.77
(5)						

Install (INS)  
Removal (REM)

(M)(TOU) -  
Metered Time  
of Use  
(UM) -  
Unmetered

Roadway (RW)  
Post Top (PT)  
Wall Pack (WP)

Estimated Total **-\$24,486.24**

### Project Notes:

03993-10073

69336-75011

2 of 2 Documents

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Print _____	_____	Print Account Executive	_____
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### GPC Internal Use Only

INS / REM	UNREG/ REG	HID / LED	RETRO/ NEW/RWC	PPID#
DWE _____	R	LED	Repl	_____
DWE _____	R	LED	Repl	Rev Class: Street & Hwy <input type="checkbox"/> Other <input type="checkbox"/>
DWE _____	R	LED	Repl	Region _____
DWE _____	R	LED	Repl	Construction: Existing <input type="checkbox"/> Other <input type="checkbox"/>
DWE _____	R	LED	Repl	_____

If an existing customer, list account number if it is not shown above:

# Roadway Lighting



## Frequently Asked Questions

### Q. Why is Georgia Power beginning to offer LED roadway lights?

**A.** Georgia Power has been offering LED outdoor area lighting as part of its product offering to customers since January 2012. Governmental customers began asking about LED for roadway applications approximately two years ago. Until now, the initial cost of the fixtures made it prohibitive to offer LED roadway alternatives to our customers. Technology improvements, coupled with market acceptance, resulted in lower pricing for LED roadway fixtures. Therefore, the economics are such that we can offer LED roadway fixtures at a comparable rate to what our customers currently pay for roadway lighting.

### Q. What is the difference between the Outdoor Lighting Service Governmental schedule: OLG and the new Public Service Commission (PSC)-approved Roadway Lighting Governmental schedule: RLG?

**A.** The Outdoor Lighting Service Governmental schedule: OLG and the new PSC-approved Roadway Lighting Governmental schedule: RLG are both designed for roadway lighting requirements, including streets, alleys, highways, bridges and other public thoroughfares for federal, state or local government customers. They differ in that the OLG schedule is specific to ballast-operated vapor lamp fixtures such as mercury vapor (MV), high-pressure sodium (HPS), or metal halide (MH), whereas the RLG schedule is specific to light-emitting diode (LED) fixtures.

### Q. Will you change out all the fixtures at one time?

**A.** Georgia Power is taking a phased-in approach to the conversion. The governmental customers we serve have fixtures of various wattages/lumen output. The implementation plan calls for a four-year phased-in approach. Timing could be affected by the availability of competitively priced fixtures that meet Georgia Power specifications. Below is the anticipated rollout:

- Phase I will replace the 100 and 150 watt HID cobrahead roadway fixtures with LED roadway fixtures. Phase I installations will begin in 2015 and carry over into 2016.
- Phase II will replace the 250 watt and 400 watt HID cobrahead roadway fixtures with LED roadway fixtures. Estimates are that Phase II will occur in the 2016-2017 time frame.
- Phase III will replace HID post top fixtures with LED post top fixtures. It is expected that the post tops will be converted in 2018.

**NOTE:** Roadway lighting is being converted to LED at the customer's request. Georgia Power is not forcing customers to convert their roadway lighting to LED.

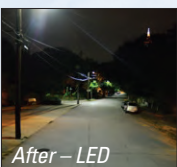
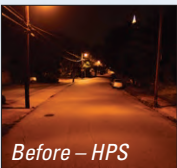
### Q. If a governmental customer wants to participate in the LED Roadway project, who do they contact?

**A.** Governmental customers that desire to be included in the LED Roadway project should contact Jerry Cook, LED Roadway account executive. Jerry will provide the customer with a Six-month Disconnect Notification form that must be signed in compliance with Georgia Power's Outdoor Lighting Governmental (OLG) tariff. Once the six-month time period has elapsed, the governmental customer will be included in the schedule for conversion. Scheduling will be managed on a first-request basis, taking into account the need to balance the conversions across the state.

To participate, contact:

**Jerry Cook**, LED Roadway Account Executive  
770-621-2415 (Office) • 404-863-1418 (Cell)  
jecook@southernco.com

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# LED

## Roadway Lighting

### **Q. Once Georgia Power begins, how long will it take to complete the installation?**

**A.** The length of time to complete the conversion will vary depending on the total number of customers on the schedule, quantity of lights to be converted to LED, and resources available (engineering, materials and contractors). After an initial ramp-up period, our goal is to install 500 lights per day/10,000 lights per month throughout Georgia Power's service territory.

### **Q. What are the benefits of LED lighting?**

- A.** There are many benefits to LED roadway lights:
- Broad spectrum white light (the eye sees better!)
  - Improved color rendering
  - Improved small-target visibility
  - Uniformity
  - LED fixtures reduce/eliminate sky glow and light trespass
  - Energy-efficient
  - Long life expectancy of fixtures
  - No hazardous materials
  - Designed to operate with networked lighting controls

### **Q. What are networked lighting controls?**

- A.** Each LED roadway fixture has a networked lighting control installed. Features of the networked lighting control include:
- Turn on at dusk, turn off at dawn
  - Metering of energy consumption
  - Remote monitoring and diagnostics
  - GPS location
  - Fixture data
  - Dimming/scheduling

Information about the energy consumption, fixture performance, etc., is captured through the networked lighting control and transmitted to our central management system.

### **Q. Will changing to the LED roadway lights cost customers more?**

**A.** Customers will not incur any up-front or out-of-pocket costs to have their current roadway lights changed to LED. Their total monthly billing for the LED lighting under the Roadway Lighting Governmental (RLG) rate and the Energy for Outdoor Lighting Service (EOL) rate will be similar to the charges currently billed under the Outdoor Lighting Service Governmental (OLG) rate and EOL rate. The new total monthly billing may vary from current billing depending on the numbers and wattage of the lights being replaced with LED lights. The monthly bill will reflect an increase in the equipment lease and maintenance charge and a decrease in the regulated energy usage charge.

### **Q. Will the LED Roadway bill format look different?**

**A.** Yes. New accounts will be established for LED roadway lights. There will be some nomenclature changes on the bills reflecting how the new LED lights are described (different from current HID lighting descriptions). Until all conversions are complete for a customer, the customer will receive a bill for the LED roadway lights installed and for the HID lights not yet converted to LED. New LED Roadway lighting accounts can easily be added to existing summary bill accounts if the customer is currently on summary billing.

### **Q. What happens if these new LED lights go out? Who do I call?**

**A.** One of the benefits of networked lighting controls is remote monitoring and diagnostics. Georgia Power will know if a light is not working properly and, in most cases, have the light repaired before the customer even notices that the light is out. However, in those instances where a customer does need to report a light out, it can be done by one of the following methods:

- Call Customer Service at 1-888-660-5890.
- Go to [outdoorlighting.georgiapower.com](http://outdoorlighting.georgiapower.com).
  - Click on "Report Outages & Maintenance Needs."

## Superior Efficiency and Control

With efficiencies as high as 95%, the patented AccuLED Optics™ system is up to 30% more efficient than traditional HID optical systems. Available in ten beam distributions, the AccuLED Optics system provides the flexibility and performance required for any outdoor application.

## Warm White Color

Lighting designers, architects and specifying engineers have long preferred light sources that provide a balanced spectral power distribution and warm white light. Many LED solutions standardize on a cold blue 6000-6500K correlated color temperature (CCT) to maximize lumen output. The Navion LED provides warm white light at a standard 4000K CCT with no sacrifice in lumen output.

