

Bright Ideas

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Georgia Power
Outdoor Lighting Services

Welcome to Bright Ideas, your source for information on outdoor lighting issues, products and ideas. Georgia Power's Lighting Services group works to bring you the most up-to-date information about the industry and your options for outdoor lighting. **In this issue, you can find the latest on "dark skies" ordinances and how you can utilize the best in outdoor lighting while meeting your community's needs as well.**

How Can We Help with Dark Skies?

Light pollution – defined as “any adverse effect of artificial light, including sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste” – has become a significant issue for many communities, as well as some national and international organizations.

At Georgia Power, we believe we can identify solutions that protect the night sky from these adverse effects while still providing the lighting people need at work and at home. And by working with organizations such as the Illuminating Engineering Society of North America (IESNA) and the National Electrical Manufacturers Association (NEMA), we have access to the most advanced information and technology available.

To address potential light pollution issues, our outdoor lighting experts combine their design skills with a wide range of products to offer systems that meet our customers' performance, safety, security and economic criteria while minimizing sky glow and light trespass.

To design effective outdoor lighting that meets these standards, we:

- Evaluate the customer's lighting needs
- Determine the appropriate light level based on IESNA guidelines

See **Dark Skies Solutions**, page 2

Call 1-888-768-8458 or visit

outdoorlighting.georgiapower.com for more information about Georgia Power Outdoor Lighting. Our lighting experts will be happy to help you learn more about creating a bright, inviting outdoor environment for your business.

Outdoor Lighting – Working for Your Business

NorSouth Corporation



For Georgia Power Account Executive Mike Mauldin, a successful outdoor lighting project is all about planning. “We work very hard to determine the customer's needs, and to meet those needs with the best lighting options available that will fit their environment as well as their budget,” he said.

By focusing on more than just light fixtures, Georgia Power Outdoor Lighting experts help customers find the outdoor lighting system that truly works for their business.

Jervon Harris of NorSouth Corporation says that

See **Working for Your Business**, page 2

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more

Dark Skies Solutions

continued from page 1

- Contain light and glare within property lines by using proper pole and lamp selection and placement
- Consider controls that allow lights to be turned off or to reduce light levels during inactive periods

We anticipate that awareness of light pollution will continue to grow as new research is published concerning its relationship to the health and well-being of people, wildlife and our environment. For more information on Georgia Power Outdoor Lighting's commitment to innovative ideas and preserving dark skies, please contact us at 1-888-768-8458 or at outdoorlighting.georgiapower.com

Working for Your Business

continued from page 1

approach has been a successful one on several of his projects so far. "Mike is our go-to guy," said Harris. "He follows up with me before I follow up with him, which helps keep everything on track."

On a retrofit project at the company's Orchard Walk multi-family development, the design involved better lighting for parts of the property to improve security, including improved building and area lighting. Harris said, "I can't even tell you how many times we met on this project. We went through several iterations of design and budget to make everything work."

Mauldin says that's what the Outdoor Lighting process is all about. "To reach a satisfactory plan from a pricing and design standpoint, we were able to come back with multiple different scenarios," he said.

The approach to NorSouth's redevelopment of the Johnson Ferry East Apartments is a bit different, but still takes into account the company's needs. The project is NorSouth's first as master developer, and will be a mixed-income, mixed-use community with residential and retail components.

Harris said that Georgia Power has helped NorSouth manage the process as they go through it. "It's everything from government approvals to fixture selection, and ultimately helping us fit it all inside the budget," he said.

For such a big project, Mauldin says it's important to get everyone involved together up front. "By meeting with all the parties involved – everyone from the architect to the landscape designer – we can really see what we need," he said. "For example, that way, we don't plan to put a light up where the landscaper is already planning to put a big tree, or vice versa. It saves time and money down the road."

For Harris, Georgia Power's willingness to think through all components of a project – not just the outdoor lighting – and to discuss multiple options, is the key to success. "It's the biggest added value of their outdoor lighting process," he said. "Everything they do is designed to help the entire project succeed."

Georgia Power Outdoor Lighting Team Benefit from Working with the Best

Now more than ever, you need to make the most of your budget dollars. By choosing Georgia Power Outdoor Lighting, you can rest assured you are working with outdoor lighting experts who will provide the most effective, cost-efficient outdoor lighting options available.

- **Experience and Expertise** – We have decades of experience in the outdoor lighting business. We have the knowledge to design and install a system that will illuminate your entire site effectively, efficiently and uniformly, and we can perform all the maintenance – right down to changing the

light bulbs.

- **Free Lighting Analysis** – We will evaluate your current lighting levels, identify any problem areas, and create a tailored proposal for the solution that best fits your business needs.
- **Leasing Option** – With this option, you don't have to pay the full cost of equipment and installation up front. This eliminates ownership risk and lets you budget effectively for lighting costs. Leasing also offers current year tax benefits.
- **Compliance** – In areas where ordinances require it, or when a customer requests it, we utilize a variety of cut-off fixtures to meet dark skies standards, reducing things like glare and light reflecting toward the sky.

In the Headlines: LED Outdoor Lighting

Outdoor lighting systems that use new light emitting diode (LED) technology have been attracting attention in the media lately. To ensure this is a viable option for our customers, Georgia Power is testing and evaluating LED technology and monitoring the progress being made in making it a viable light source option for outdoor lighting applications. Information from LED and lighting fixture manufacturers, as well as professional organizations including the American National Standards Institute (ANSI), the Illuminating Engineering Society of North America (IESNA), the U.S. Department of Energy (DOE), and the Electric Power Research Institute (EPRI), is included in our review and evaluation process.

Based on our most recent evaluations, we believe LED lights for the outdoor lighting market have not yet reached the level needed to be included as part of Georgia Power's outdoor lighting product offering. While progress is being made in the development of reliable outdoor lighting using LED technology, additional development is needed before LED lights and lighting systems can be approved for use in outdoor lighting applications for our customers.

We do expect that the rapid progress in LED outdoor lighting development will allow us to begin using LEDs in the future. The industry is making steady progress in developing reliable LED lights with lumens (the measure of the amount of light produced by the light) per watt ratios that are competitive with many high intensity discharge metal halide and high pressure sodium

lamps. Major manufacturers are also developing and improving fixtures that will use LEDs.

Issues affecting LED use for area and roadway lighting applications include:

- Development of national standards for common connections, replacement parts and for the measure of LED fixture and system life
- Resolution of heat dissipation issues that can shorten the life span of the light
- Advances in lighting design program standards
- Development of fixtures with appropriate light output to provide a range of lighting capabilities for area and roadway lighting applications
- Costs competitive with current metal halide or high pressure sodium lights
- Market growth sufficient to justify a supply chain capable of meeting customer demand

Georgia Power believes LED offers great promise as a future technology. It offers potential for energy savings, increased durability, reduced maintenance, surface illuminance uniformity, and the ability to more precisely control light distribution for outdoor lighting applications. Good advances are being made to develop and produce LED lighting products for roadway and area lighting applications, but it is still too early for large-scale usage. For additional information, please contact Georgia Power at 1-888-768-8458 or at outdoorlighting.georgiapower.com



Atlanta turning out the lights for Earth Hour

On Saturday, March 28, from 8:30 to 9:30 p.m., individuals, businesses and local government officials throughout Atlanta are encouraged to turn off non-essential lights in support of Earth Hour 2009. The event is a global effort organized by the World Wildlife Fund to show support for action on climate change.

This is the second year Atlanta will be an official Flagship City for Earth Hour. Last year, more than 400 buildings and approximately 97 percent of Atlanta's skyline went dark for the hour.

While there are no specific energy reduction targets, Georgia Power will measure the drop in electricity usage during the hour. In 2008, Georgia Power customers in Atlanta decreased their electricity usage by nearly 4 percent. The average reduction was 7.05 megawatt-hours, or enough electricity to serve 1,750 homes.

To learn more about Earth Hour, visit www.EarthHourUS.org.

New Legislation Affects Select Outdoor Lighting Metal Halide Luminaires

The Federal Energy Independence & Security Act, which was signed into law in late 2007, states that all 150- to 500-watt metal halide lamp luminaires manufactured on or after Jan. 1, 2009, must meet new ballast efficiency ratings.

In effect, the legislation makes current probe-start, metal halide-ballasted products in this wattage range obsolete, and will force a national transition to higher efficiency pulse-start metal halide technology.

In addition to improved operating efficiency, there are several benefits to pulse-start metal halide technology, including:

- **More Lumens per Watt:** Pulse-start metal halide systems improve lamp efficacy (lumens per watt) by up to 45%, resulting in more useable light per watt consumed.

- **Longer Life:** Pulse-start lamps offer substantially higher life ratings – up to 20,000-30,000 hours, or an improvement of up to 50%.
- **Better Lumen Maintenance:** With a lumen maintenance rating of up to 75%, pulse-start lamps reduce light loss over their life by up to 15% when compared to probe-start metal halide lamps. Fewer watts per square foot are required to illuminate an area as a result of consistently higher light levels throughout lamp life.
- **Faster Warm-Up/Quicker Re-strike:** Warm-up time is cut in half to 2 minutes for pulse-start systems versus 4 minutes for probe-start. Re-strike times after an outage are reduced to 3 to 4 minutes for pulse-start lamps versus 15-20 minutes for probe-start.

FAQs

When did the law take effect?

Jan. 1, 2008: Arizona, California, New York, Oregon, Rhode Island and Washington

Jan. 1, 2009: All other states

What types of lighting products are affected?

All metal halide-ballasted fixtures (indoor or outdoor) from 150 watts to 500 watts.

Can existing probe-start metal halide fixtures be sold through distribution after Jan. 1, 2009?

Yes, as long as the fixture was manufactured prior to Jan. 1, 2009.

Will probe-start ballasts and lamps remain available for service needs?

Yes, the new legislation applies only to finished good customers fixtures. All new metal halide luminaires purchased by Georgia Power Outdoor Lighting after Jan. 1, 2009, are in full compliance with this federal legislation.

Georgia Power Outdoor Lighting Website Illuminating Help Is Just a Click Away

For decades, Georgia Power Outdoor Lighting has helped our customers design, install and maintain effective lighting systems that enhance their outdoor environments through effective, efficient and uniform lighting.

We've also enhanced the environment on the Georgia Power Outdoor Lighting Website, so we can provide even better support around the clock. The site provides expanded interactive features for all our customers, including:

- Customer Service for repairs, upgrades or additions to your lighting system
- Online "Repair-a-Light" maintenance reporting
- Expanded catalog of "Design-a-Light" products available to order
- Lighting analysis requests
- Updated lighting industry and compliance information

To learn more, visit outdoorlighting.georgiapower.com today.

