



New York Energy SmartSM Small Commercial Lighting Program

The Right LightSM

Better Lighting. Better Business.

May 2007

Newsletter Number 62

NYSERDA

New York State
Energy Research and
Development Authority



FLASH

SCLP is continuing end-user marketing in the Albany (tri-cities), Syracuse, and Westchester / Rockland County areas, and we are now expanding into the New York City market.

We are promoting **The Right LightSM** in daily and weekly newspapers, local business journals, and on the radio.

Take advantage of this marketing campaign by identifying your business as an SCLP Ally. Details on the media schedule and how you can leverage this marketing campaign are available from your Account Manager or the SCLP hot line.

Please pass this newsletter along to your colleagues or customers who might find the contents valuable.

To: SCLP Ally

Program News and Highlights

* **Congratulations to the Winners of the SCLP Installation Competition!** SCLP is pleased to announce the winners of the *1st quarter 2007 Installation Competition*.

In the **Small Contractor** category, an award of **\$1,000** will be made to **Ace Energy Company** of Buffalo, with eight projects. In addition, **Ace Energy Company** is awarded an additional **\$1,000** for having the highest square footage in the quarter, at 113,643 ft².

In the **Small Distributor** category, an award of **\$1,000** will be made to **Thorpe Electrical Supply** of Rensselaer, with five completed projects.

Remember, in order to qualify for the competition a minimum of five qualifying projects meeting SCLP's **The Right LightSM** criteria must be completed in the quarter. You can check the status of the Installation Competitions on the SCLP web site. The standings are updated weekly. Find this information under the "Latest News" section of the SCLP web site.

Good luck to all our Ally Distributors and Contractors in the upcoming competitions!



Allies in Action

* **SCLP Ally Helps Restore Troy.** Troy, New York, that is. Greg Comora and his colleagues from Ally Manufacturers' Rep **Point Source Group** (the Lithonia Lighting agency for Upstate New York, with multiple locations) have been SCLP participants since October 2003. While their products have been used on many SCLP projects, Point Source Group has not previously submitted a project of their own. Many of the projects they help design considerably exceed the 25,000-square-foot limit.

This past fall, Greg worked with First Columbia, a Latham commercial real estate firm, on a project in the historic Hedley Building in Troy. The project involved renovating the building's seventh floor as model office space, one of the first steps in a major revitalization project in the city's downtown business district. The 9,200 square foot project consists primarily of open offices (offices exceeding 300-square feet), with a few private offices, a conference room, and employee comfort areas.

The lighting design is simple and includes only two types of fixtures: linear T5 direct-indirect suspended fixtures in the largest open office and conference room, and recessed T5 volumetric lighting (also known as "recessed direct-indirect") in the other spaces. The project has a net lighting power density of 0.57 watts per square foot (W/ft²), which is half of the SCLP 1.4 W/ft² lighting power allowance. Additionally, light levels averaging from 45 to 50 footcandles meet SCLP guidelines for office spaces. This first project earned Point Source Group a **\$750 Qualifying Project Incentive** and the opportunity to contribute **The Right LightSM** solution to the revitalization of Troy.

Contacting the
New York
Energy SmartSM
Small Commercial
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Phone (toll-free):
1-866-698-8177

Fax:
518-452-2149

E-mail:
scfp@icfi.com

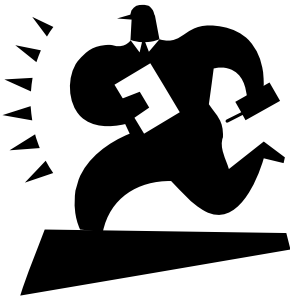
We're on the Web!
www.therightlight.org
NEW!

Reminder:

**The 2nd Quarter
2007 Installation
Competition runs
from April 1
through June 30,
2007. Good luck
to our Ally
Contractors and
Distributors!**

**SCLP Helps You
Bring Your Clients
and Customers
The Right
LightSM
Effective, Energy-
Efficient Lighting.**

**Better Lighting.
Better Business.**



Technical Tip: All Watts are Not Created Equal

No, this isn't a reference to one of the cornerstone documents of American democracy. But it is a key concept in understanding energy efficiency as applied to lighting technologies and systems – especially since your customer pays the lighting portion of their electricity bills based on the amount of energy that those systems consume.

Different lighting technologies have varying efficacies: the ratio of lumen output to wattage input. In comparing the efficacies of lighting systems, higher efficacy (lumens per watt) means that the system is more energy-efficient.

Let's look at a few examples, and start with the easiest technology: the incandescent light bulb. Incandescent lights, when operated at their rated voltage, draw the number of watts shown printed on the lamp or packaging. Quite simply, a 60W incandescent lamp operated at 120 volts will consume 60W.

Now let's introduce a little complexity into the mix. Fluorescent lighting sources require ballasts in order to operate. Ballasts contribute, with the lamps, to total system wattage. A fixture fitted with two four-foot F34T12 lamps (each lamp rated at 34W) and a magnetic ballast will consume about 72 W. Here comes yet another wrinkle: the same fixture using two four-foot F32T8 lamps (each rated at 32W) in conjunction with an electronic ballast will consume about 60W – less than the total rated wattage of the two lamps. The benefit to your client: more than *15% energy savings* for the T8 system compared to the T12 fluorescent system.

The previous example is based on the two ballasts having the same ballast factor. The ballast factor – BF – is the ratio of the light output from lamps operated by a commercially available ballast to the light output of the same lamps operated by a standard reference ballast. For instance, referring back to the T8 lamps described above, if a lamp produces 2,800 lumens with the reference ballast (BF = 1.0), using a normal BF ballast (at 0.88 BF), the lamp will produce 2,464 lumens (2,800 x 0.88) per lamp. The wattage consumed will also be reduced, yielding 60 W for the total system of two lamps plus ballast. As the ballast factor decreases, so does lumen output – but total system wattage is also reduced (although not proportionally).

Energy efficiency (and energy cost savings) can be increased by using low BF (0.77) ballasts in conjunction with high lumen output (3,100 lumens) lamps. For instance, if the lamp produces 3,100 lumens using the reference ballast, it will produce 2,387 lumens (3,100 x 0.77) using the low BF ballast. At the same time, system wattage will be reduced to 50 W for the two lamps plus ballast. This is a *30% energy savings* compared to T12 fixtures, but the light output will be comparable.

These savings are not limited to fluorescent lighting technologies. High intensity discharge (HID) lamps (such as mercury vapor, high and low pressure sodium, and metal halides) also draw the lamp wattage plus the wattage needed by the ballast. Typically, a 400 W MH fixture consumes about 455 W using a standard ballast (400W for the lamp, and 55 for the ballast). A Pulse Start Metal Halide system using a 350 W lamp will provide about the same amount of light but the total lamp/ballast combination wattage is only about 400W, a *12% energy savings*.

The idea that all watts are not created equal is not a revolution. But the electricity bill savings that your clients will enjoy when you show them how you can provide adequate light levels at minimum operating cost with **The Right LightSM** may be a revelation. Even better, end-user incentives from other **New York Energy SmartSM** programs may be available to make these lighting upgrades even more attractive to your clients.