

CEE Industry Partners Lighting Breakout

Focus on Energy Whole Building Lighting Program

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Focus on Energy Business Programs

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What is Focus on Energy?

- **Wisconsin's statewide program for energy efficiency and renewable energy**
- Legislature created the program in 1999, expanded in 2005
- Aimed at increasing Wisconsin's energy independence by helping residents and businesses implement efficiency and renewable energy projects that would not occur otherwise

Focus on Energy services

- Technical assistance
 - Unbiased advice from experts
 - Industry specific experience
- Incentives and financial assistance
 - Incentives that mitigate first cost of choosing efficiency or renewable energy
 - Up to 30% of project costs in some cases
- Help end users and Trade Allies take action

Focus works with...

- Residential customers
 - Single and multifamily
 - Homeowners and renters
- Businesses
 - Agribusiness, commercial, industrial, and schools and government
- Communities
 - Cities and community groups that want to be more sustainable



Focus business lighting

- Prescriptive lighting
 - One-for-one upgrade, proven technologies, minimal risk
- Custom lighting
 - Must use recognized technologies and clearly show how savings is derived
 - Incentives paid based on first year kW and kWh savings, higher for emerging technologies
- Whole Building Track for new construction
 - Energy modeling as a basis for incentives



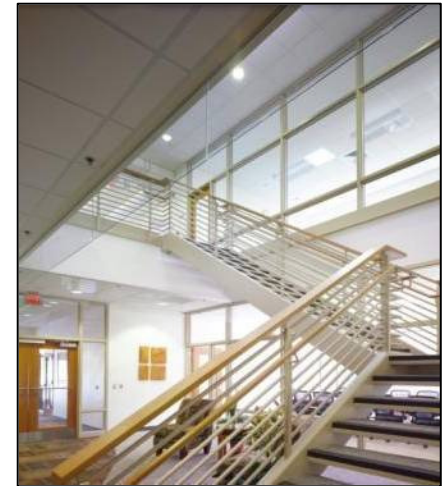
Why Whole Building Lighting?

- Success with high-bay fluorescent
 - Great savings and participation, but long payback projects put on back burner
 - Comprehensive designs losing out to anyone selling high-bay fluorescent fixtures
- Recognize additional savings in existing buildings
 - Comprehensive approach
 - Controls and careful specification beyond component level retrofit



Comprehensive program definitions

- Capture additional savings from design, dimming ballasts, controls, daylighting, and multi-system savings
- Have flexibility to reward more creative solutions, careful selection beyond component retrofit
- Promote full facility upgrades



Whole Building Lighting (WBL) program elements

- Encourage innovative thinking to reduce energy through advanced lighting design
- Additional financial support
 - An aggressive approach is more costly
- Non-linear financial incentives
 - The more aggressive the design, the more rewarding the incentive

WBL program elements

- Encourages a team approach between the building representative and the lighting designer
 - Incentives will allow both parties to receive funding (90% customer, 10% designer)
- Emphasis on using various methods to achieve energy savings while maintaining lighting levels
- **focusonenergy.com/wholebuildinglighting**

WBL program requirements

- Baseline assessment of the building
- The designer must be an LC or PE
- Design must be reviewed by the whole team
 - Customer, designer/trade ally, and Focus advisor
- Must incorporate 70% or more of the qualified floor area

WBL program requirements

- Design must result in lighting power density that is at least 20% better than code, and still meet IES recommendations
- New construction and areas that have been upgraded within the last two years are excluded

“Taking a big comprehensive energy-savings approach to your entire facility can lead to an outstanding return on investment”

Take your bottom line to a whole new level with whole-building lighting

Announcing Focus on Energy's Whole-Building Lighting Program for School and Government Facilities

To reach maximum energy (and dollar) savings you need to think big. Swapping standard lighting ballasts and lamps for energy efficient ones can lead to a sound payback. But, taking a big, comprehensive energy-savings approach for your entire facility can lead to an outstanding return on investment.



The Whole-Building Lighting Program for school and government facilities is designed to bring your operations staff together with lighting design professionals to collaborate and think “outside the box” to reduce energy use. Together they can spend additional time to evaluate alternatives to standard lighting design and use advanced design strategies to increase energy efficiency.

A comprehensive approach yields comprehensive results

When you take a whole-building approach to energy efficient lighting, you'll benefit from performance that exceeds ASHRAE standard 90.1-2004. Whole-building lighting design will also reduce your:

- energy consumption and electric demand
- carbon footprint
- problems of glare and reflection
- operating costs—while providing better light quality

Explore, challenge and maximize your building's lighting potential

The program's incentives are enhanced to encourage aggressive energy savings and promote a comprehensive whole-building approach over a less-costly partial upgrade. The more aggressive the design approach toward reducing energy use, the more rewarding the grant will become. **In addition, the grant will allow both parties to receive funding, with 90 percent for the customer and 10 percent for the lighting designer.**

With the help of a lighting certified designer (LC) or a professional engineer (PE) trained in lighting design, your building can benefit from current lighting design tools, professional expertise and a thorough understanding of available technologies. By fostering a team approach between your building's operations staff and a lighting system designer, you'll be well positioned to achieve maximum energy savings while maintaining appropriate lighting levels.

Application Process

Participation is easy—just follow the simple steps below.

1. Fill out the application located at focusenergy.com/wholebuildinglighting.
2. Once your application is received, Focus will send you or your lighting designer a spreadsheet to help you benchmark the proposed upgrade area.
3. Once your participation is approved, Focus on Energy staff will guide you through the rest of the process.

Participation is limited! Sign up quickly to assure your participation.

Questions? Call 800.762.7077 to learn more about how you can participate in this exciting opportunity to reduce your energy costs.

800.762.7077 focusenergy.com

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Program element comparison

	MA	VT	WI
Incorporate existing technologies, emerging technologies, controls, and/or daylighting	X	X	X
Involve lighting designers in each project	X	X	X
Promote whole house/building upgrades (70% of qualified floor area)	X		X
Promote to lighting providers and end users	X	X	X
Use non-linear incentive approach		X	X
Require baseline assessment of spaced	X	X	X
Set incentives based on performance compared to code			X

Whole Building Lighting program

Conditions for moving ahead

- Good relationships/communications with Trade Allies and customer base
- Potential for incentives to be higher than standard
- Good communication of process and expectations
- Best projects are older buildings that are over-lit

Whole Building Lighting program

- Key decisions
 - C&I teams decided not to offer (yet)
 - Requirement of LC or PE has created some issues
 - Incentive based on difference between *code* and final design



Results and lessons learned

- Adopted as program offer for 2010
- Schools and government only
- Two additional Trade Allies
- Nine projects identified
- Over 500 kW and 1.5 million kWh
- \$279,000 incentives awarded to-date
- Initially spurred a lot of interest from Trade Allies (Many not LC or PE)

Results and lessons learned

- Successful applications are getting at lighting with long paybacks
- Much more labor intensive
- Requires team approach
- Minimum of 30% savings indentified to make worthwhile
- Potential for “gaming”



Beyond 2010

- Looking for ways to integrate other systems
 - HVAC, Renewables, Foodservice
- Expand to other business sectors
- Integrate DOE Commercial Lighting Solutions
- Integrate tools developed by CEE Comprehensive Lighting committee
- Update offer based on code changes

Questions?

- **Call** 800.762.7077
- **Web** focusonenergy.com

Whole Building Lighting program website:
focusonenergy.com/wholebuildinglighting

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