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## Congress Extends Commercial Buildings Deduction to 2013

by Craig DiLouie, Lighting Controls Association

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By Craig DiLouie

The Energy Policy Act (EPAAct) of 2005 created the Commercial Buildings Deduction (CBD), which established an accelerated tax deduction rewarding investment in energy-efficient interior lighting, HVAC/hot water systems and building envelope.

Initially set to expire December 31, 2007 and then December 31, 2008, the CBD was recently extended by Congress to expire in five years: December 31, 2013.

### The Deduction

A tax deduction is a cost subtracted from adjusted gross income when calculating taxable income; tax liability is not reduced dollar for dollar, as is the case with a tax credit, but instead in proportion to the taxpayer's tax bracket.

The Commercial Buildings Deduction can make lighting upgrades more attractive. Photo courtesy of Leviton



Deducting the cost of a capital investment such as new lighting is not special. What is special about the CBD is the owner can potentially write off the entire cost of the new

lighting in the tax year in which it is placed in service, instead of capitalized and depreciated or amortized over time. So it's an accelerated tax deduction: If a cost item associated with installing new lighting is normally depreciated and claimed over a period of years, it can now be claimed in a single tax year.

The CBD essentially has two levels depending on whether one wants to achieve savings targets for the entire building—interior lighting, HVAC/hot water and building envelope—or each of these systems individually. And the Interim Lighting Rule, which was supposed to be in effect only until the partial deduction rules were written, is still in effect.

The Interim Lighting Rule does not require special software or building energy modeling and is therefore relatively simple to implement, so we will focus on this part of the CBD in this article.

[Click here](#) to learn more about the complete deduction and the partial deduction rules.

### The Interim Lighting Rule

The Interim Lighting Rule enables commercial building owners to deduct the full



cost of new interior lighting, capped at \$0.30-\$0.60/sq.ft. on the sliding scale in Table 1, if the new lighting achieves a lighting power density (W/sq.ft.) that is 25-40% lower than the maximum values published in Standard 90.1-2001's Table 9.3.1.1 or Table 9.3.1.2 (not including additional power allowances).

**Table 1.**

% of LPD reduction beyond Standard 90.1-2001	25%	26%	27%	28%	29%	30%	31%	32%	33%
Amount of Eligible Tax Deduction/sq.ft.	\$0.30	\$0.32	\$0.34	\$0.36	\$0.38	\$0.40	\$0.42	\$0.44	\$0.46

% of LPD reduction beyond Standard 90.1-2001	34%	35%	36%	37%	38%	39%	40%	>40%
Amount of Eligible Tax Deduction/sq.ft.	\$0.48	\$0.50	\$0.52	\$0.54	\$0.56	\$0.58	\$0.60	\$0.60

The exception is warehouses: The lighting system must reduce power density by at least 50% to earn a deduction of up to \$0.60/sq.ft.

Both retrofit and new construction projects qualify, as long as the project is located in the United States or its territories.

Qualifying building types are listed in [Table 9.3.1.1](#), although IRS Notice 2008-40 adds nonresidential unconditioned garage spaces to building types covered by the CBD. Houses of worship, meanwhile, do not qualify because religious organizations are tax-exempt and their buildings are not owned by the public.

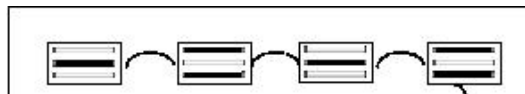
So if a retrofit project in a 100,000-sq.ft. commercial office building costs \$100,000 and the cost is \$0.60/sq.ft., then \$60,000 could be written off in the tax year the new lighting is placed in service, and the remaining \$40,000 would be written off normally.

Besides reaching a reduction in power density, three other conditions must be met to qualify for the CBD under the Interim Lighting Rule:

- Install all mandatory [controls and circuiting provisions](#) in Standard 90.1-2001 (but only if a new construction or qualifying lighting alteration project, as retrofits—projects in which only lamps, ballasts and/or controls are replaced—are not covered by 90.1).
- Install [bi-level switching](#) in all occupancies except hotel and motel guest rooms, store rooms, restrooms, public lobbies and parking garages.
- Achieve the minimum recommended calculated light levels as established in the 9th Edition of the [IES Lighting Handbook](#).

What is “bi-level switching”? Generally, bi-level switching is manual or automatic control (or a combination of the two) that provides at least two levels of lighting power in a space (not including OFF). NEMA has stated that bi-level switching typically produces 10-15% energy savings.

**Multi-level switching**



scheme enabling 0%, 33%, 66% and 100% light and power levels. Graphic courtesy of DOE.

Dimming or switching can be used. It can be as simple as a split-ballasting system with the lighting assigned to two circuits, each controllable from a separate wall switch that is accessible to occupants (unless remote access is required for safety or security). The A/B switching can be based on alternate ballasts switching or alternate fixtures. From this basic scheme, other options become available. For example, the control can be a photosensor, occupancy sensor or input from a schedule instead of a wall switch, or alternatively dimming ballasts can be used that respond to a range of control inputs.

Also note that Standard 90.1-2001 only recognizes permanently installed lighting, so upgrading portable task lighting does not qualify as a contribution to the CBD. Similarly, the Standard exempts exit signs from interior lighting power calculations, and therefore exit sign upgrades do not qualify as a contribution toward earning the CBD.

### **Project Certification**

For a building owner to claim the CBD, the project must be certified by a qualified individual—a contractor or engineer properly licensed as such in the jurisdiction where the building is located. The individual, who cannot be an employee of the building owner, must demonstrate in writing to the owner that he or she has the qualifications to do the certification.

According to [IRS Notice 2008-40](#), the qualified individual must document the reduction in lighting power density in a thorough and consistent manner, with the certification including:

- Contact information for the qualified individual performing the certification.
- Address of the building to which the certification applies.
- Statement by the qualified individual that the interior lighting systems have been, or are planned to be, incorporated into the building that meet all of the requirements of the Interim Lighting Rule (suitable reduction in lighting power density, controls and circuiting in compliance with Standard 90.1-2001, etc.).

The certification must also include a statement by the qualified individual that:

- Field inspections were performed by a qualified individual after the lighting was placed in service;
- That these inspections were performed in accordance with testing procedures prescribed in the National Renewable Energy Laboratory (NREL) as [Energy Savings Modeling and Inspection Guidelines for Commercial Building Federal Tax Deduction \(PDF\)](#) (see pages 1-2) and currently in effect; and
- These inspections confirmed the building is meeting the specified reduction in lighting power density.

The qualified individual must also provide:

- A list showing the energy-efficient lighting components and features of the building and projected power density;
- Statement that the building owner has received an explanation of the energy efficiency features of the building and projected power density; and
- A declaration: "Under penalties of perjury, I declare that I have examined this certification, including accompanying documents, and to the best of my knowledge and belief, the facts presented in support of this certification are true, correct and complete."

The building owner should keep a copy of the certification in their tax records.

[Click here \(PDF\)](#) to see NEMA guidance on certification letters.

### **Software**

Note that although [IRS Notice 2006-52 \(PDF\)](#) says the certification must include

a statement that [qualified computer software](#) was used to calculate energy and power consumption and costs, this is not needed to demonstrate compliance with the Interim Lighting Rule. Instead, a spreadsheet or similar software can be used.

#### **Public Buildings**

If the building is government-owned (doesn't pay taxes), the designer ("person that creates the technical specifications for installation of energy-efficient commercial building property") can claim the CBD, according to [IRS Notice 2008-40](#). If more than one designer is involved, the owner may allocate the CBD to the designer who was primarily responsible for the design or, at the owner's discretion, among the designers.

#### **More Info**

NEMA created an excellent website at [www.lightingtaxdeduction.org](http://www.lightingtaxdeduction.org) that explains the CBD. (Note the site should be updated soon and so some sections may be out of date.)

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