

## **A STRATEGY FOR PROVIDING ENERGY EFFICIENT DESIGNS THAT IMPROVE THE CLIENT'S BOTTOM LINE**

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The EAct 2005 Commercial Buildings Deduction is an IRS incentive program that provides an accelerated depreciation on the costs of energy efficient commercial building systems. Even though EAct has been in force for years, many building owners are unaware of the program. Competent lighting design begins with working with clients to establish project goals and to develop design objectives. Remembering to make EAct a part of these initial discussions with your clients will enhance your value.

The incentive program is set to expire on December 31, 2013, but the deadline has been extended several times in the past and could be extended again. Initially, it's important to realize that the program provides a tax deduction, not a tax credit. A tax credit is a direct dollar-for-dollar reduction in tax liability, whereas a tax deduction is a cost subtracted from the adjusted gross income when calculating taxable income.

There are five options for achieving the tax deduction under the program. Four of the options are more difficult to apply and require calculations using DOE approved software. The fifth option of the program is known as the Interim Lighting Rules. This option doesn't require use of approved software to qualify. This option is limited to interior lighting systems and can provide a tax deduction as high as \$0.30 to \$0.60 per square foot of project space.

The main focus of the Interim Lighting Rules is achieving Lighting Power Densities (LPDs) that are significantly below those required by ANSI/ASHRAE/IESNA Standard 90.1-2001. The standard presents two methods for determining LPDs; the Building Area Method and the Space-by-Space Method. A table presented under the Building Area Method lists building types and gives the maximum allowable lighting watts per square foot for each type. A similar table under the Space-by-Space Method provides the maximum allowable lighting watts per square foot for individual space types. Either one of these two methods may be used to determine the lighting power allowance for a project.

The value of the tax deduction is based on the project square footage, the percentage that the lighting power density is below the Standard 90.1-2001 lighting power allowance, and the total cost of the lighting system. For a lighting power density 25 percent below the allowance, the project can qualify for a tax deduction of \$0.30 per square foot. For a lighting power density 40 percent below the allowance, the project can qualify for a tax deduction of \$0.60 per square foot. There's a sliding scale built into the tax program, so designs that provides lighting power densities between 25 and 40 percent below the allowance can achieve tax deductions proportionally between \$0.30 and \$0.60 per square foot.

In December 2009, the National Electrical Manufacturers Association and American Institute of Architects called on Congress to increase the value of the deductions available under the law. There's been some activity in Congress towards this end, but at this time the deduction amounts remain unchanged.

It's important to note that the value of the tax deduction is capped at the total capitalized cost of the lighting system. Capitalized cost includes the cost of fixtures, ballasts, lamps, wiring, lighting controls, labor, and disposal of removed materials. The tax deduction can't exceed the total capitalized cost of the system. The allowable tax deduction is the lesser of either the capitalized cost or the calculated per square foot deduction. If there's an amount of cost left, over and above the deduction, then that amount can be depreciated and claimed normally over time. The Interim Lighting Rules don't result in a greater depreciation on the lighting system than the normal tax accounting method, just an acceleration of the depreciation.

Storage areas and warehouse spaces are special cases under the program. These spaces must achieve a lighting power density 50 percent or greater below the allowance to qualify, but then can be awarded a tax deduction as high as \$0.60 per square foot. For these types of spaces there's no deduction for lighting power densities less than 50 percent below the allowance.

A misunderstanding that's frequently encountered in renovation projects is that reducing the lighting power density of the new lighting below that of the existing lighting by the prescribed percentages will qualify for the tax deduction. This is definitely not the case. The lighting power density of the new lighting must be compared to the allowances set forth in Standard 90.1-2001, not the existing lighting being replaced.

Meeting the energy efficiency requirements given above is an important first step in achieving the tax deduction, but it's not the only requirement necessary to qualify. Other requirements include:

- The lighting levels in all spaces must meet IESNA recommendations.
- All mandatory control provisions of Standard 90.1-2001 must be met.
- Bi-level switching must be installed in all occupied spaces, except hotel and motel guest rooms, store rooms, restrooms, and public lobbies. Two manual switches, one manual switch plus an occupancy sensor, or a single dimmer control, all qualify under the Rules as bi-level switching. In large warehouse and industrial facilities it's permissible to provide bi-level switching directly from panelboard circuit breakers.

The National Electrical Manufacturers Association in cooperation with the Commercial Building Tax Deduction Coalition has created a website to provide education about the lighting aspects of the deduction and resources to help with its implementation. The website address is <http://lightingtaxdeduction.org/>. Please visit this website to learn about other features of the program.

The tax deduction available through this program reduces the cost of good lighting and makes efficient lighting systems, that have always been attractive in the long run, attractive in the short run, as well. Taking advantage of the Interim Lighting Rules is well worth considering on your next lighting project. You owe it to your clients to make EPAAct a part of your initial project discussions.