

An Overview of Section 1331 of H.R. 6, the Energy Policy Act of 2005 (Public Law 109-58)

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What types of buildings will qualify? What types of expenditures will qualify?

Section 1331 of H.R. 6 provides that energy-efficient commercial building property is defined as property that is:

1. Installed on or in any building located in the United States that is within the scope of Standard 90.1-2001, Energy Standard for Buildings Except Low-Rise Residential Buildings, of the American Society of Heating, Refrigerating, and Air Conditioning Engineers and the Illuminating Engineering Society of North America;
2. Installed as part of (i) the interior lighting systems, (ii) the heating, cooling, ventilation, and hot water systems, or (iii) the building envelope; and
3. Certified as being installed as part of a plan designed to reduce the total annual energy and power costs of interior lighting systems, heating, cooling, ventilation, and hot water systems of the building by 50 percent or more when compared to a reference building, which meets the minimum requirements of Standard 90.1-2001 (as in effect on April 2, 2003).

What is the tax deduction amount?

The deduction is equal to energy-efficient commercial building property expenditures made by the taxpayer, subject to a cap. The deduction is limited to an amount equal to \$1.80 per square foot of the property for which such expenditures are made. The deduction is allowed in the year in which the property is placed in service. For tax purposes, "placed in service" generally means the time at which the property is ready for its intended use.

Are there certification requirements and if so, what are they?

Certain certification requirements must be met in order to qualify for the deduction. The secretary of treasury, in consultation with the secretary of energy, will promulgate regulations that describe methods of calculating and verifying energy and power costs, using qualified computer software based on the provisions of the 2005 California Nonresidential Alternative Calculation Method Approval Manual or, in the case of residential property, the 2005 California Residential Alternative Calculation Method Approval Manual. These regulations are currently being drafted by DOE in consultation with Treasury Department officials in advance of the implementation date of January 1, 2006.

How will calculation design methods impact various technologies?

The intention is that the calculation be fuel neutral: the same energy efficiency features qualify a building for the deduction, regardless of whether the heating source is a gas or oil furnace, or boiler, or an electric heat pump.

In addition, the calculation methods are to provide appropriate calculated energy savings for design methods and technologies not otherwise credited in either Standard 90.1-2001 or in the 2005 California Nonresidential Alternative Calculation Method Approval Manual, including the following:

1. Natural ventilation;
2. Evaporative cooling;
3. Automatic lighting controls such as occupancy sensors, photocells, and timeclocks;
4. Daylighting;
5. Designs utilizing semi-conditioned spaces that maintain adequate comfort conditions without air conditioning or without heating;
6. Improved fan system efficiency, including reductions in static pressure;
7. Advanced unloading mechanisms for mechanical cooling, such as multiple or variable speed compressors;
8. On-site generation of electricity, including combined heat and power systems, fuel cells, and renewable energy generation such as solar energy; or
9. Wiring with lower energy losses than wiring satisfying Standard 90.1-2001 requirements for building power distribution systems.

The calculation methods may take into account the extent of commissioning (the initial operability of a system) in the building, and allow the taxpayer to take into account the amount of system performance that may exceed typical performance.

Will there be inspections of buildings to determine compliance? Who will do them?

The secretary of the treasury shall prescribe procedures for the inspection and testing for compliance of buildings that are comparable to the requirements in the *Mortgage Industry National Accreditation Procedures for Home Energy Rating Systems*. Individuals qualified to determine compliance shall only be those recognized by one or more organizations certified by the secretary of the treasury for such purposes. These compliance inspection requirements are currently under development.

Are partial deductions allowed for building subsystems instead of a whole building deduction?

In the case of a building that does not meet the whole building requirement of a 50 percent energy savings, a partial deduction is allowed with respect to each separate building system that comprises energy-efficient property and which is certified by a qualified professional as meeting or exceeding the applicable system savings targets established by the secretary of the treasury.

The applicable system savings targets to be established by the secretary are those that would result in a total annual energy savings of 50 percent for the whole building, if each of the separate systems met the system target; note that the maximum allowable deduction is \$0.60 per square foot. The separate building systems are the:

1. Interior lighting system;
2. Heating, cooling, ventilation, and hot water systems; and
3. Building envelope.

What are the interim rules for lighting projects?

Building owners are encouraged under the law to focus first on lighting systems for two reasons: first, their ease and availability of upgrading, and second, the known achievements in energy efficiency that will be gained. In the case of a lighting system (including the retrofit of an existing system), until such time as the secretary of the treasury issues final regulations, the system energy savings target for the lighting system is deemed to be met by a reduction in lighting power density of 40 percent (50 percent in the case of a warehouse) of the minimum requirements in Table 9.3.1.1 or Table 9.3.1.2 of ASHRAE/IESNA Standard 90.1-2001 (as in effect on April 2, 2003). Note that in the case of other building systems (i.e., HVAC systems and the building envelope), partial deductions are generally not allowed until the secretary establishes system targets for such systems.

In the case of a lighting system that reduces lighting power density by 25 percent, a partial deduction of \$0.30 per square foot is allowed. A pro-rated partial deduction is allowed in the case of a lighting system that reduces lighting power density between 25 and 40 percent. Certain lighting level and lighting control requirements must also be met in order to qualify for the partial interim lighting deductions.

What is the effective date for taking advantage of this tax deduction?

The provision is effective for property placed in service after December 31, 2005, and prior to January 1, 2008.

After the deduction is taken how is the remaining asset value handled?

As stated in the provision, the basis of the property is reduced by the deduction amount and the remaining asset value is depreciated over its tax life for the class of property.

Are garages eligible for the deduction?

Yes, parking garages are a space type covered by ASHRAE 90.1

If a building were designed to a newer building standard, wouldn't it already satisfy the conditions for the tax deduction?

Not likely. Although lighting power densities in, for example, ASHRAE 90.1-2004 are almost low enough to satisfy the interim lighting LPDs, the lighting controls requirements of the interim lighting provision go beyond those of 90.1-2004. During the development of the legislation care was taken to insure that "free riders" would be minimal.

What if a commercial building tenant performs a retrofit that would meet the energy savings, would they get the deduction? Is the deduction for privately owned buildings restricted to the owner or can a management company or a tenant in a leased space take advantage of the deduction? The tax deduction is to be given to the owner of the lighting system. Do you believe this enables ESCOs, if they own the lighting system until the end of their performance contracts, to claim the tax deduction for themselves as the legal owner of the lighting system? Could the building owner even do it legally if the ESCO is the owner under the performance contract?

Unfortunately, as in many matters of tax law, the question is not necessarily clear. The person who gets the CBTD deduction is the person who owns the property for tax purposes. Although in many, if not most instances, a tenant improvement will revert to the landlord at the end of a lease, the property is not necessarily owned by the landlord for tax purposes. It is a question of fact and the determination depends on the arrangements between the parties. If the tenant pays for the investment, constructs it according to its own specs, and there are no concessions in the lease or from the landlord, it is likely that the tenant will be the owner of the improvements for tax purposes and eligible to claim the CBTD deduction.

Fortunately, this is a question that arose under the tax law before the enactment of the CBTD. In the case of tenant improvements, the tenant and landlord would have to determine who is the tax owner for purposes of claiming depreciation deductions in any event. The CBTD does not change that determination. The CBTD simply provides a more beneficial deduction than that normally provided by depreciation.

The analysis is the same regarding improvements in government buildings. If the contractor is the owner for tax purposes, it can claim the CBTD. Whether a private person can be an owner of property with respect to a government building under the applicable local law is a factor that would have to be taken into account in determining who is the owner for tax purposes.

Does the accelerated tax deduction cover the complete cost of the lighting, including installation labor, or does it only include the cost of purchasing the equipment? What are the components of the "cost" that can be written off?

It includes anything that can be capitalized, including labor.

Are recycling costs deductible?

Any cost that may be capitalized may be considered for the deduction.

Can portions of buildings be retrofitted and still qualify for a deduction; for example; the common area versus tenant spaces; or a portion of the common area?

Portions can be retrofitted and the associated square footage areas considered.

If a building is used as both a warehouse and manufacturing facility, ASHRAE/IES 90.1 appears to allow the building area method to be used separately for the warehouse portion and the manufacturing facility portion. Is it then the case that the tax deduction would be calculated separately for both areas of the building if the building area method is used-50% savings and \$0.60/sq.ft. for the warehouse, and 25-40% savings and \$0.30-\$0.60/sq.ft. for the manufacturing facility?

The building areas could be addressed separately, as suggested.

Are exit signs included in the program; and if so; can they be retrofits versus new signs?

No, ASHRAE 90.1-2001 does not allow exit signs to be considered in the lighting power allowance determinations.

Are screw in compact fluorescent lamps included; and if so; is there any requirement for permanence?

No, screw in CFLs could not be used to reduce wattage for purposes of the deduction. The ASHRAE 90.1-2001 lighting power calculations require that the maximum labeled wattage of incandescent luminaire be used.

Is there a criterion for what type of lighting systems qualify for the partial tax deduction? For example, in a manufacturing facility, would task lighting upgrades qualify if the LPD is reduced by enough to obtain the deduction? Or is the deduction for ceiling lighting system upgrades?

The legislation does not specify lighting technology for the tax deduction. The applicability of task lighting would typically turn on the question of whether it is "permanently installed". ASHRAE 90.1-2001 defines "permanently installed" as "equipment that is fixed in place and is not portable or movable" . To be considered, then, the task lighting would need to satisfy this definition.

Is it the case that per ASHRAE/IES 90.1 the maximum possible wattage for the fixture will be applied?

The luminaire wattage to be used in the power calculation depends on the type of lighting technology (see ASHRAE 90.1-2001 Section 9.2.5). Please consult lighting designers and manufacturers as to what wattage would be appropriate for "lamp/auxiliary" combinations.

The requirement for bi-level switching is not in ASHRAE/IES 90.1. What was the thinking behind including it in most building space types? What typical savings can be achieved through bi-level switching? Or was the thinking more of requiring a basic infrastructure so that advanced controls are more attractive for installation and can be used to generate higher savings?

Bi-level switching was included so that the lighting-only interim provision would result in a 50% below ASHRAE 90.1-2001 overall energy reduction for a typical building application. Bi-level switching is projected to typically reduce lighting power input by 10-15% on an annual basis. The reduced lighting power input would also reduce HVAC load for most building types. Bi-level switching would also provide some controls for all retrofits (See ASHRAE 90.1-2001 about "lighting alterations" controls requirements).