



Smart Energy Design Assistance Center
Energy Policy Act Business Tax Incentives

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We had a choice to make this morning...



Go Fishing



Study EPAct

[Overview]



- Introduction to EPO Act 2005.
- Available business tax incentives.
- Window of opportunity and ownership issues.
- Tax credit basis.
- Effect of other incentives on federal tax credits.

[EPAct 2005]



- The Energy Policy Act of 2005 (EPAct 2005) is the first effort of the U.S. government to address energy policy since the Energy Policy Act of 1992.
- It was an omnibus bill over 1,700 pages long addressing a vast array of energy issues.
- Tax incentives to businesses are found in Title XIII, Subtitle C, beginning on page 1332 through page 1390 of the act.

Tax deductions for highly efficient commercial buildings.



- Up to \$1.80 per square foot tax deduction

Tax credits for solar energy systems.

- Tax credit equal to up to 30 percent of system cost.
- PV
- and Thermal
- No limit



Tax credits for fuel cell and microturbines used in a business.



- Fuel Cells - 30 Percent Tax Credit up to \$1,000/kW
- Microturbines – 10 Percent Tax Credit up to \$200/kW

Tax credit for production of energy efficient appliances.



- Up to \$175 per unit tax credit to energy efficient appliance manufacturer.



[Tax Deductions vs. Credits]



- There is an important difference between a tax deduction and a tax credit.
 - A **tax deduction** is subtracted from income before total tax liability is computed.
 - A **tax credit** is subtracted directly from the total tax liability.
- This means that a deduction and a credit have very different values, with a credit being 3 or more times more advantageous to the taxpayer than a deduction. For example, a tax credit of \$1,000 for a business in the 35% tax bracket is equivalent to a tax deduction of \$2,857.

Energy-Efficient Commercial Building Property Deduction – Notice 2006-52



- A tax deduction of up to \$1.80/sf for investment in energy-efficient commercial building property as part of new construction or renovation (within the scope of the ASHRAE/IES 90.1 Standard) is authorized.
- The amount of the deduction is the lesser of \$1.80/sf or the costs incurred or paid for the energy-efficient property.

[What Qualifies?]



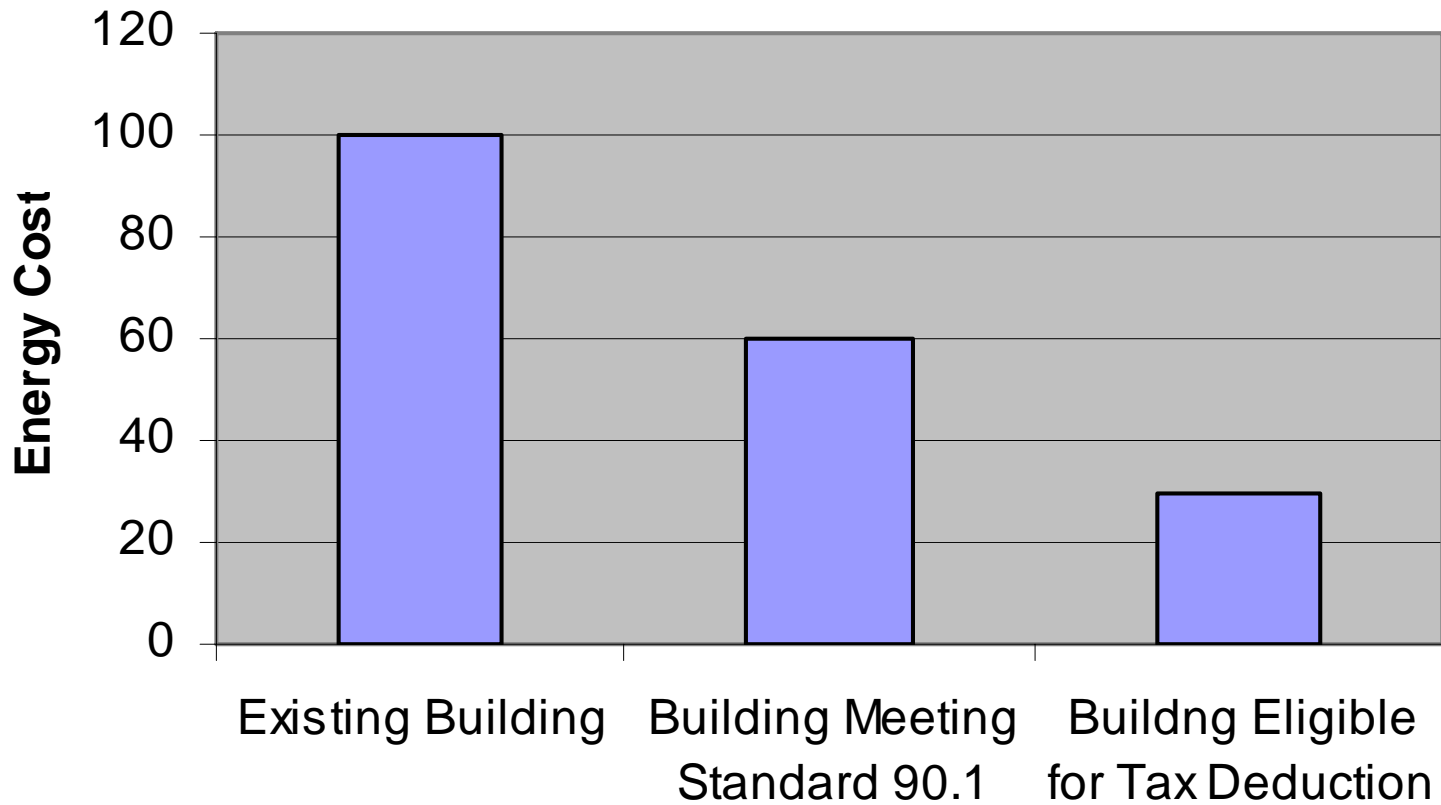
- “Energy-efficient property” is defined to be commercial building property that is certified to reduce combined annual energy and power **costs** of qualifying systems to at least 50% less than a building satisfying the ASHRAE 90.1-2001 Standard

Energy-Efficient Commercial Building Property



- In addition, the property must be otherwise depreciable property located in the U.S. .
- The ASHRAE/IES 90.1-2001 Standard is defined as the standard as in effect on April 2, 2003.
- This means that the published lighting power densities in the Standard's Table 9.3.1.1 (building area method) and Table 9.3.1.2 (space-by-space method) are in effect as far as the tax deduction is concerned.

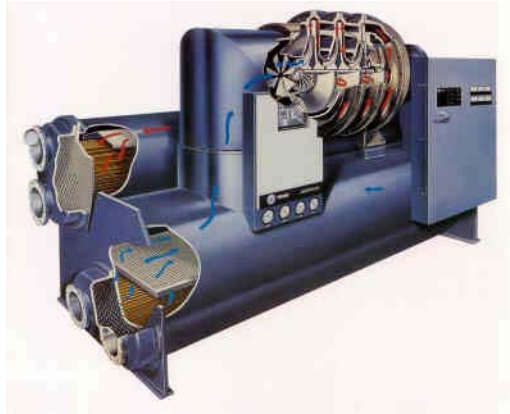
The Hurdle is 50% **Cost** Relative to ASHRAE 90.1 Standard



Commercial Building Qualifying Systems



HVAC



Water Heating



Interior Lighting



Building Envelope

[What Doesn't Qualify?]



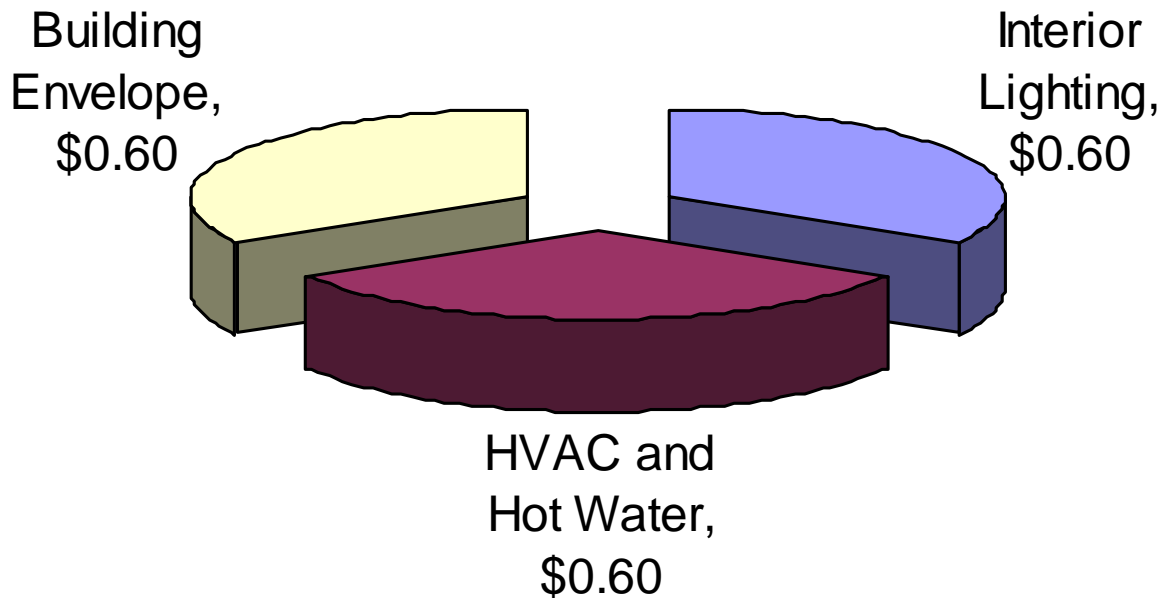
- Exterior Lighting
- Plug Loads
- Cooking
- Refrigeration
- Process Loads
- Elevators, etc.

[Partial Deductions]



- The Secretary of the Treasury has developed energy-savings targets for each type of system covered (interior lighting, HVAC/hot water, building envelope).
- Meeting any of the three targets will be another route building owners can take to demonstrate qualification for the deduction.
- If a property does not qualify for the \$1.80 tax deduction, but one of the qualifying systems meets its designated cost-savings target, then the property will be eligible for a partial tax deduction.
- This deduction per system is the lesser of: \$0.60/sf or the costs incurred or paid for the energy-efficient system.

The \$1.80/sf Building Deduction Breakdown



Permanent Rules for Partial Deductions



- The hurdle is 50 percent divided by 3 = 16 and 2/3 percent.
- Except if you use the “Interim Rule” for interior lighting.
- Interim rule for interior lighting can be used until final regulations under section 179D are published in the Federal Register.

Permanent Rule for Building Envelope - \$0.60/sf Deduction



- Certified that the system will reduce combined energy and power costs of **HVAC, hot water, and interior lighting** by 16 and 2/3 percent relative to the Standard 90.1 Reference Building.

Permanent Rule for Interior Lighting - \$0.60/sf Deduction



- Certified that the system will reduce combined energy and power costs of **HVAC, hot water, and interior lighting** by 16 and 2/3 percent relative to the Standard 90.1 Reference Building.
- No specifics on lighting power density, controls, or illumination levels.

Permanent Rule for HVAC and Hot Water - \$0.60/sf Deduction



- Certified that the system will reduce combined energy and power costs of **HVAC, hot water, and interior lighting** by 16 and 2/3 percent relative to the Standard 90.1 Reference Building.

[Interim Rule – Interior Lighting]

- The Interim Rules for Lighting Systems define the lighting system energy-savings target to be a **lighting power density** that is 25-40% lower than the minimum requirements in Table 9.3.1.1 (building area method) or Table 9.3.1.2 (space-by-space method) (not including additional interior lighting power allowances) of Standard 90.1-2001.
- For warehouses, the lighting power density must be 50% lower than the minimum requirements of Standard 90.1-2001.

[Interim Rule – Interior Lighting]

- Under the Interim Rule the deduction is on a sliding scale:
- A 25 percent reduction in lighting power density qualifies for a \$0.30 per sf deduction.
- A 40 percent reduction in lighting power density qualifies for the full \$0.60 per sf deduction.

[Interim Rule – Interior Lighting]

- Besides demonstrating a reduction in lighting power density beyond ASHRAE Std 90.1-2001:
 - All controls provisions in the Standard must be met.
 - Bi-level switching must be installed in all occupancies except hotel and motel guest rooms, store rooms, restrooms and public lobbies .
 - The application must meet the minimum requirements for calculated light levels as set forth in the 9th Edition of the IESNA *Lighting Handbook*.

[How to Claim the Deduction]



- The energy efficiency of the property must be certified by a qualified individual. You cannot self certify.
- Qualified individuals are Professional Engineers or Licensed Contractors
- The qualified individual must use qualified computer software to perform the analysis and certification.

[How to Claim the Deduction]



- A list of qualified software is maintained at:
http://www.eere.energy.gov/buildings/info/qualified_software/
- Presently the list consists of:
 - Trace 700
 - EnergyPlus
 - Hourly Analysis Program
 - VisualDOE

How to Claim the Deduction



- In applying the qualified software the Performance Rating Method (PRM) described in Appendix G of ASHRAE Standard 90.1-2004 must be utilized in determining the performance of the Reference Building and the Energy Efficient Building.

[How to Claim the Deduction]



- Corporations claim on Form 1120 Line 22 “Other Deductions”
- Sole Proprietors claim on Schedule C, Lines 48 and 27 “Other Expenses”.
- The certification does not need to be filed, but must be maintained with the tax payer’s records.

An Interesting Benefit for Design Professionals



- In the case of privately owned buildings, the tax deduction is earned by the owner or person or entity that paid to have the building constructed or renovated.
- In the case of publicly owned (Federal, State, or local government or a political subdivision of one) buildings, the law states that the Secretary of the Treasury will create a regulation “to allow allocation of the deduction to the person primarily responsible for designing the property in lieu of the owner of such property. Such person will be treated as the taxpayer for purposes of this deduction.”

[Commercial Solar Tax Credit]



- Business Solar Investment Tax credit is available on two types of equipment:
 - Equipment which uses solar energy to generate electricity, to heat or cool (or provide hot water for use in) a structure, or to provide solar process heat, **except for a swimming pool.**
 - Hybrid Solar Lighting Systems - Equipment which uses solar energy to illuminate the inside of a structure using fiber-optic distributed sunlight.

[Commercial Solar Tax Credit]



- The provisions of the bill substantially increases the business investment tax credit from 10% to 30%.
- This tax credit is available to businesses that purchase solar thermal and PV systems during calendar years 2006, 2007, and 2008.
- This business investment tax credit for solar equipment does not have a maximum credit limit.

[Commercial Solar Tax Credit]



- To be eligible for the solar hot water system tax credit, the system must be certified by the Solar Rating and Certification Corporation (SRCC) and half of the energy used by the system must be derived from the sun ($SF \geq 0.5$).
- There is no qualification provided for PV systems.
- Businesses may claim tax credits for either or both types of solar systems.

[Fuel Cells and Microturbines]



- Business installation of qualified fuel cells plants and stationary microturbines.
- Fuel cells:
 - at least 0.5 kW capacity and
 - electric-only generation efficiency > 30%.
 - Tax credit not to exceed \$500 per 0.5 kW of capacity.
 - Fuel cell plant includes stack assembly and balance of plant to convert fuel into electricity by electrochemical means.

[Fuel Cells and Microturbines]



- Microturbines:
 - Stationary plant with nameplate capacity less than 2,000 kW and
 - Electric-only efficiency not less than 26%.
 - Tax credit not to exceed \$200 per kW of capacity.
 - Microturbine plant includes gas turbine engine, a combustor, a recuperator or regenerator, a generator or alternator, and associated balance of plant components to convert fuel into electricity and thermal energy.

Incentives for Manufacturers of Energy Efficient Appliances



- Incentives for Refrigerators on a sliding scale:
 - \$75/unit for 15%-19.9% better than Federal Standard
 - \$125/unit for 20%-24.9% better than Federal Standard
 - \$175/unit for 25% or more above better than Federal Standard.
- Clothes Washers \$100/unit for Energy Star

[Time Limits and Ownership]



- All of these provision apply only to property put into service (daily operation) after December 31, 2005 and before January 1, 2009.
- Legal title and control of the equipment by the taxpayer must be taken place during the above window.
- The property must be in the United States.
- Equipment must be new, unless extensively rehabbed or as part of a larger system (80/20 limit applies).

[Tax Credit Basis]



- A company's "tax credit basis" is the portion of its investment in eligible property upon which the commercial tax credit can be claimed.
- For eligible property placed in service in 2006, 2007, or 2008 the "tax credit basis" is the amount that is multiplied by appropriate incentive to determine the value of the tax credit. In the simplest case, this is the amount the company paid to purchase and install for the eligible property.

[Tax Incentive Basis]



- Sales tax and interest paid on debt to acquire qualified assets are normally deductible as a business expense.
- However, an election can be made under section 266 of the tax code to fold them into the tax credit basis. In that case these expenditures would have to be deducted over time through depreciation, but they would enter into calculation of the commercial tax credit.

[Effect of Other Incentives]



- State rebates, buy downs, grants, or other incentives do not decrease the amount eligible for the federal investment tax credit if the company is required to pay federal income tax on the incentive.
- Most other incentives represent income on which federal income taxes are paid and therefore do not decrease the basis for the federal investment tax credit.
- Some other incentives are not taxable and for these the tax credit basis must be reduced prior to calculating the commercial tax credit amount.

[Effect of Other Incentives]



- If you are uncertain which category your particular rebate program falls under, you should get in touch with the state or utility energy program contacts listed at www.dsireusa.org or contact a tax attorney for project specific clarification.
- Nontaxable rebates from a utility – basis must be reduced by the amount of rebate.

[Effect of Other Incentives]



- Incentives that do not reduce the tax basis:
 - Taxable state or nonprofit grants, rebates, or buy downs.
 - Credits against state and local income tax.
 - Taxable utility rebates for credits.
 - State performance-based incentives.
 - Sale of renewable energy credits (RECs).
 - Loan guarantees.
 - Grants from NGOs funded from non-governmental sources.

[Other Issues]



- Tax credits are taken on IRS form 3468 Investment Credit.
- Companies that pay the alternative minimum tax (AMT) may not be able to use the energy tax incentives – the credits may be deferred to another tax year where they can be used (forward 20 years).

[Sources of Information]



- www.nema.org
- www.efficientbuildings.org
- www.irs.gov
- www.ashrae.org
- <http://www.energytaxincentives.org/>
- http://www.lightingtaxdeduction.org/tax_deduction.html
- www.dsireusa.org
- www.mwalliance.org

Illinois Smart Energy Design Assistance Center

Web site: www.sedac.org

Contact: info@sedac.org

1-800-214-7954

