

# How LEED 2009 Expands EPAct Tax Savings Opportunities

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Charles Goulding, Taylor Goulding and Amelia Aboff discuss the changes to the LEED certification program. These changes make it probable that a LEED building will qualify for one or more EPAct (Energy Policy Act) Code Sec. 179D energy efficiency tax deductions.

**L**eadership in Energy and Environmental Design (LEED) is the fast-growing marquee standard for sustainable buildings. LEED is the certification system established by U.S. Green Building Council (USGBC). The four certification achievements start at the LEED certified level and proceed to the higher LEED silver, gold and platinum levels.<sup>1</sup>

On April 27th 2009, the new LEED 2009 system replaced the previous LEED rating point system for certifying LEED buildings.

The major differences with the new LEED system are

1. adjustment to the point system
2. weighted credits
3. regional bonus credits

**Figure 1.**

LEED Points for New Construction				
	Pre-2009 LEED		2009 LEED	
Sustainable Sites	14	22%	26	26%
Water Efficiency	5	8%	10	10%
Energy & Atmosphere	17	27%	35	35%
Materials & Resources	13	20%	14	14%
Indoor Environmental Quality	15	23%	15	15%
Innovation & Design	5	8%	6	6%
Additional Regional Bonus Credits	0	0%	4	4%

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Allocating a substantial increase in LEED points to energy measures is a practical change reflecting market conditions. This change makes it probable that a LEED building will qualify for one or more Energy Policy Act of 1992 (EPAct) Code Sec. 179D energy efficiency tax deductions.<sup>2</sup> The USGBC described the changes, stating "overall the changes increase the relative emphasis on the reduction of energy consumption and greenhouse gas emissions associated with the building systems, transportation, the embodied energy of water, the embodied energy of materials and where applicable the solid waste." Moreover, most buildings built in 2009 are required to comply with local building energy codes that are in most cases substantially higher than those applicable during most of the previous LEED system time period. It is important for tax purposes to realize that under both the prior and the new LEED systems, buildings must have supporting designed building energy efficiency computer software models.

**Figure 2.**

LEED Certification Points		
	Pre-2009 LEED	2009 LEED
Certified	26-32	40-49
Silver	33-38	50-59
Gold	39-59	60-79
Platinum	52-69	80 and above

## The Tax Opportunity

Code Sec. 179D, effective January 1, 2006 through December 31st 2013, provides an immediate tax deduction of up to \$1.80 per square foot for building

investments that achieve specified energy cost reductions beyond ASHRAE 90.1-2001 building energy code standards. LEED 2009 utilizes ASHRAE 90.1 2007 as its baseline, which is already an improvement over 2001. Therefore, projects that are LEED 2009 certified are naturally platformed for tax savings. A one-time \$1.80 per square foot deduction is the maximum tax deduction, but deductions of up to 60 cents per square foot are also available for three types of building systems: lighting, HVAC systems and the building envelope.

### **The Future of LEED Projects and Professionals**

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Since the USGBC's introduction of LEED in 2000, the rating system has become the national standard for green building certification; more than 21,200 LEED projects have been registered as of May 2009.<sup>3</sup> This number will undoubtedly increase even more quickly with the introduction of the more multifaceted LEED 2009 system, which includes not only the existing categories of LEED for New Construction, Existing Buildings, Operations and Maintenance, Core and Shell, Commercial Interiors, and Schools, but also new categories for Homes and Neighborhoods and Pilot Programs for Retail and Healthcare facilities. The anticipated increase in LEED Projects in the future will be met by the growing number of LEED Accredited Professionals. When the LEED AP credential was created in 2001, 527 professionals chose to pursue the accreditation; today, LEED APs number more than 114,000.<sup>4</sup> With the increasing amount of both LEED professionals and buildings, the potential for savings under the EAct should also experience dramatic growth.

### **Regional Bonus Points**

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The establishment of regional bonus points is another practical change reflecting the major differences in regional environments. For example, in the northern U.S., energy efficient heating is important where in the south energy efficient cooling is crucial. In parts of the western U.S., water is a scarce resource. The performance of alternative energy measures such as solar, wind and geothermal are highly dependent on regional factors.

The new regional bonus mechanism is to be established by local USGBC chapters which for purposes of the bonus are to be determined by state and U.S.

possession designation. This may require some adjustments for national property owners with common building footprints that are striving for a standard LEED qualifying design.

### **Introduction of an ASHRAE Green Building Code**

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The American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) has been working diligently on proposed Standard 189.1, the nation's first Green Building energy code.<sup>5</sup> This legislation is intended to provide minimum criteria for green building practice with major emphasis on energy and water usage efficiency. The standard is applicable to new commercial buildings and major renovations. When completed this standard is expected to address energy efficiency, a buildings impact on the atmosphere, sustainable sites, water use efficiency, materials and resources, environmental quality, and other green building issues.<sup>6</sup>

When enacted in each participating state this new code will platform a much higher percentage of new building and major renovation projects for EAct commercial building energy efficiency tax savings.

### **The LEED/EAct Tax Deduction Modeling Interface**

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LEED buildings must be modeled and modeling is mandatory for achieving the \$1.80 maximum tax deduction, the HVAC and the building envelope tax deductions.

Since the building energy loads and the reference building standards are different for LEED and EAct modeling, it is important to hire tax professionals familiar with the tax and engineering modeling conversion process. It is also important to use IRS-approved software for both LEED and the EAct modeling iteration which will save time and allow a qualifying project to obtain tax savings. The current list of IRS approved software is shown in Figure 3.

### **The Government Building Designer Tax Incentive**

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Building designers including architects, engineers, lighting designers, design and build firms, and ESCOs (energy service companies) involved in LEED government building projects, including K-12 public schools, are also potentially eligible for the EAct

Figure 3.

IRS Approved Modeling Softwares	
Energy Plus	Version 2.2.0.023 Version 2.1.0.023 Version 2.0.0.025 Version 1.4.0.025 Version 1.3.0.018
DOE-2.1E	Version 119
DOE-2.1E-JH	Version 130
EnergyGauge Summit	Version 3.14 Version 3.13 Version 3.11 Version 3.1
EnerSim	Version 07.11.30
Green Building Studio	Version 3.1 Version 3.0
Hourly Analysis Program (HAP)	Version 4.34 Version 4.31
Owens Corning Commercial Energy Calculator (OC-CEC)	Version 4.31
TRACE 700	Version 6.1.2.0 Version 6.1.1.0 Version 6.1.0.0. Version 6.0.2.1
VisualDOE	Version 4.1 build 0002

tax incentive. Many federal, state and local government agencies and school construction authorities require all government buildings to be built at a LEED certified level.

The Federal Building Green Building Policies list,<sup>7</sup> shown in Figure 4, illustrates some of the federal agency LEED building mandates.

## Conclusion

Tax professionals involved with LEED buildings should recognize that these projects are often eligible for substantial EPC Act tax savings. This is particularly the case for LEED platinum and gold buildings, all buildings that achieved LEED points through energy measures, and new LEED 2009 certified buildings.

Figure 4.

Federal Building Green Building Policies	
Agency	Requirements
Dept of Agriculture	New construction & major renovations: Required to achieve LEED Silver
Dept of Energy	New buildings \$5M or greater: Required to achieve LEED Gold
Dept of Health & Human Services	Projects with federal funds in excess of \$3M: Must achieve LEED certification or Green Gloves certification
Environmental Protection Agency	New buildings over 20,000 ft <sup>2</sup> : Must achieve LEED Gold
General Services Administration	Capital building projects: Must earn LEED Certified with a target of LEED Silver
National Aeronautics & Space Administration	New construction & major renovations: Required to meet LEED Silver, and strive to meet LEED Gold
U.S. Air Force	New construction & major renovations: Encouraged to meet LEED standards
U.S. Army	New vertical construction projects: Required to achieve LEED Silver
U.S. Navy	All projects: Required to meet LEED Certified

## ENDNOTES

- <sup>1</sup> Charles Goulding, Jacob Goldman and Nicole DeMarino, *LEED Building Tax Opportunities*, CORP. BUS. TAX'N MONTHLY, Jan. 2008, at 17-19.
- <sup>2</sup> Energy Policy Act of 1992 (P.L. 102-486).
- <sup>3</sup> U.S. Green Building Council, "About LEED," *U.S. Green Building Council Powerpoint*—May 2009.
- <sup>4</sup> U.S. Green Building Council, "About USGBC," *U.S. Green Building Council Powerpoint*—May 2009.
- <sup>5</sup> American Society of Heating, Refrigeration and Air Conditioning Engineers, *Proposed Standard for High-Performance Buildings*, (<http://ashrae.org>).
- <sup>6</sup> A public review draft may be examined at [www.ashrae.org/publicreviews](http://www.ashrae.org/publicreviews).
- <sup>7</sup> Nassau Academy of Law, "Legally Green: How to Make Green by Going Green," *Nassau Academy of Law Powerpoint*—May 4, 2009.