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179D Commercial Buildings Energy Efficient Tax Deduction

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179D Commercial Buildings Energy Efficient Tax Deduction

Section 1331 of the Energy Policy Act of 2005 created the 179D Deduction for Energy Efficient Commercial Buildings. This deduction was created to incentivize the installation of energy efficient technologies into both new construction and existing commercial buildings.

The deduction has historically received bipartisan support and been renewed annually. Most recently, the deduction was updated and made permanent on December 27, 2020 as part of the Consolidated Appropriations Act, 2021. This white paper outlines project eligibility, reviews the financial incentive, and summarizes the process for demonstrating compliance.

The tax deduction is available to developers and owners of new and existing commercial buildings, as well as of apartments buildings four stories or more. Qualifying properties must have installed energy efficient technologies that have or will result in demonstrable energy savings.

The energy efficient technologies must fall into one or more of the following categories:

- Envelope
- HVAC and Service Hot Water
- Lighting

Since savings must be derived from the categories above, credit cannot be earned for any other reductions in energy usage, such as process loads, refrigeration, cooking or elevators.

The energy savings are measured as the energy and power cost saved. Utility rates are determined as either the rate structure that applies to the building or as the state average commercial building utility rates as published by the Energy Information Administration. On-site renewable energy generation of electricity that is connected to building electrical systems cannot be included in the energy and power cost savings calculations.

The energy and power cost savings requirement for fully qualifying properties is 50% or greater when compared to an ASHRAE Standard 90.1 baseline. As part of the updates made in the Consolidated Appropriations Act, 2021, the ASHRAE Standard 90.1 baseline is defined as the most recent version of ASHRAE Standard 90.1 affirmed by the Secretary of the Treasury, in consultation with the Secretary of Energy, two years prior to the start of construction.

In addition to meeting the energy and power cost savings targets, properties are also required to meet the minimum mandatory requirements of ASHRAE Standard 90.1.

Only interior, conditioned square footage is eligible. Therefore, savings from exterior lighting or lighting in unconditioned garage space cannot be included in energy and power cost saving calculations. The square footage is measured from either the exterior faces of exterior walls or from the center line of walls separating buildings.

Fully qualifying properties can take a \$1.80 per square foot deduction. Partial deductions of \$0.60 per square foot are also available for properties that achieve specific savings thresholds in the qualifying individual categories. The savings requirements for the individual categories are listed on the following page.

Category	Required Savings
Envelope	10% Savings
HVAC and Service Hot Water	15% Savings
Lighting	25% Savings

There is an additional provision called the “Interim Lighting Rule” which can be used as a streamlined approach for demonstrating lighting savings. The “Interim Lighting Rule” also enables project teams to obtain a deduction based on a reduction in lighting power density (LPD) as compared to the ASHRAE Standard 90.1 maximum LPD allowances. Properties can earn up to \$0.60 per square foot for a 40% LPD reduction (50% for warehouses). The deduction is also available on a sliding scale for properties that reduce LPD by less than 40% but by more than or equal to 25%.

The 179D savings thresholds and financial incentives are summarized in the table below:

	Fully Qualifying Property	Partially Qualifying Property				Interim Lighting Rule
		IRS Notice (Effective Dates)	Envelopes	HVAC & HW	Lighting	
Savings Requirements	50%	2012-26 (3/12/12-12/31/20)	10%	15%	25%	25-40% lower lighting power density (50% for warehouses)
Tax Deduction*	\$1.80/ft ²		\$0.60/ft ²	\$0.60/ft ²	\$0.60/ft ²	\$0.60/ft ² times applicable percentage

*(not to exceed cost of qualifying property)

The energy savings must be demonstrated through the use of an approved energy modeling software, following prescribed energy modeling guidelines. Qualified energy modeling software is outlined by the U.S. Department of Energy Office of Energy Efficiency and Renewable Energy and is available at this [web page](#). The energy modeling guidelines are published by the National Renewable Energy Labs (NREL) in [this document](#).

The Interim Lighting Rule can be calculated separately, and without the development of a commercial energy model. Instead, the LPD reduction can be documented in a simple spreadsheet that shows the applicable ASHRAE Standard 90.1 maximum LPD allowances and the relevant reductions in the property's LPD.

Site inspections, in addition to completing energy modeling and/or LPD reduction calculations, are required. These site inspections serve to verify that the applicable mandatory ASHRAE Standard 90.1 provisions have been met, as well as to confirm that the installed building systems meet or exceed the modeled building systems.

The work describe above must be completed by a “qualified individual” as defined in IRS Notice 2006-52. The individual must be an engineer or contractor that is properly licensed as a professional engineer or contractor in the jurisdiction in which the building is located. They also cannot be related to the taxpayer claiming the deduction, within the meaning of section 45(e)(4).

The qualified individual must provide written statements attesting that he or she has the requisite qualifications to certify the energy and power cost savings calculations and the site inspection results. Further written statements by the qualified professional are provided to attest to the accuracy of the savings calculations and site inspection results. The certification from the qualified professional is not required to be attached to the return on which the deduction is taken, but it is required that the records be maintained to justify the deduction taken.

The following sources are available for further information:

→ [IRS Notice 2006-52](#)

→ [IRS Notice 2008-40](#)

→ [IRS Notice 2012-26](#)

→ [Consolidated Appropriations Act, 2021](#)

→ [Energy Savings Modeling and Inspection Guidelines for Commercial Building Federal Tax Deductions](#)

→ [Energy Savings Modeling and Inspection Guidelines for Commercial Building Federal Tax Deductions for Buildings in 2016 and Later](#)