



# CONTROLS CONTRACTOR WHITEPAPER

THE 179D DEDUCTION FOR BUILDING AUTOMATION SPECIALISTS

# Executive Summary

## What is 179D?

The Section 179D tax deduction, also known as the Energy Efficient Commercial Buildings Deduction, is a key provision of the U.S. tax code that encourages the adoption of energy-efficient technologies in commercial and high-rise residential buildings. This incentive is designed to offset the costs associated with making a building more energy-efficient and is part of broader efforts to promote environmental sustainability and reduce energy consumption in the commercial sector.

Section 179D offers a tax deduction for property owners, lessees, and designers who make qualifying energy-efficient improvements to their commercial buildings.

## Eligible Energy Efficient Equipment

To qualify for the 179D deduction, improvements must be made to the building's energy efficient commercial building property (EECBP) which includes interior lighting, HVAC and hot water, or building envelope systems. These components must meet minimum energy efficiency criteria set by The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1 standard. It also must be placed into service in the year the deduction will be claimed. Along with major HVAC and lighting equipment, eligible elements include building automation systems that control the HVAC and lighting systems serving a building.



**HVAC**



**Lighting**



**Building Envelope**



# Allocating the 179D Deduction to Designers

When Section 179D was originally introduced through the Energy Policy Act of 2005, the IRS introduced the allocation of the 179D deduction for public property.

The Inflation Reduction Act (IRA), passed in 2022, further expanded the allocation of the 179D deduction to certain tax-exempt entities. Indian tribal governments, Alaska Native Corporation, and any organization exempt from tax imposed by Chapter 1 of the IRS tax code are now eligible to allocate their deduction.

Government and tax-exempt building owners are given guidelines in Notice 2008-40 regarding how to allocate the Section 179D deduction. If more than one designer is responsible for creating the technical specifications of the EECBP, the building owner shall:

*The building owner is not, however, allowed to allocate the deduction to a party that does not meet the designer qualification.*

*"In the case of energy efficient commercial building property installed on or in property owned by a Federal, State, or local government or a political subdivision thereof, the Secretary shall promulgate a regulation to allow the allocation to the person primarily responsible for designing the property in lieu of the owner of such property."*

*-Energy Policy Act of 2005*

**1** Determine which designer is primarily responsible and allocate the full deduction to that designer, or

**2** At the owner's discretion, allocate the deduction among several designers. The building owner is not, however, allowed to allocate the deduction to a party that does not meet the designer qualification.



# Who Qualifies as a Designer?

IRS Notice 2008-40 provided the initial guidance for designers to receive the allocation on behalf of tax-exempt building owners. Section 3 of this Notice outlines the Special Rule for Government-Owned Buildings (and now applies to other tax-exempt organizations as outlined on the previous page).

## Section 3.02 of Notice 2008-40 defines a designer as:

*“a person that creates technical specifications for installation of energy efficient building property.”*

## They further elaborate by providing examples of who could qualify as a designer

*“A designer may include, for example, an architect, engineer, contractor, environmental consultant, or energy services provider who creates the technical specifications for a new building or an addition to an existing building that incorporates energy efficient commercial building property”*

## They also outline what activities do not qualify someone as a “designer”

*“A person that merely installs, repairs, or maintains the property is not a “designer”*

The industry and tax code are aligned that the activities performed by an engineer or architect often qualify them as a designer and eligible to receive the 179D deduction. However, it is clear the intent of the tax code was to broaden the field and make this incentive available to more companies dependent upon their role, responsibilities, and activities performed.

## Controls Contractors as Qualified Designers

Notice 2008-40 specifically identifies contractors as eligible to qualify as a designer and to receive the 179D deduction. The role, responsibilities, and activities performed on each project dictate whether a taxpayer fits within the definition of designer. Many contractors qualify as a designer on some projects but do not meet the definition on others. It's important to take a deep dive into each project and the scope of work to determine eligibility.



## Technical Specifications

The IRS does not provide a definition for technical specifications, but they have provided guidance over the years that helps us understand the activities and documentation they are looking for when defining a designer. The construction drawings and specifications are obvious examples of technical specifications for the project. Parties who participate in the creation of these documents and have their logo or seal included are often considered eligible designers. Additional publications provide more context and examples of eligible designer activities and how controls contractors specifically fit within the designer definition.

## IRS Memorandum 2018-005

Within Memorandum 2018-005 (Memo 2018-005), the IRS identifies that many projects undergo substantive modifications to the original design drawings and specifications. These changes are typically reflected in the final as-built, sealed drawings and become a part of the “contract documents” and therefore, technical specifications. Submittals from controls contractors fit within this definition well, as many projects delegate the design of the controls equipment, layout, and sequence of operations to the controls contractor. Scenario 8 of Memo 2018-005 provides the Facts and analysis of a specialty controls subcontractor claiming the 179D deduction.

## Scenario 8

### Facts:

A Mechanical Engineer on a design team hired a specialty Subcontractor to design and install control systems for the HVAC/HW, interior lighting, elevator, escalator, automatic door, back-up power and several other building systems that use power. These control systems are collectively called the Energy Management System. The Subcontractor did not design any of the \$179D qualifying EECBP systems but the Energy Management System manages those systems for peak energy efficiency. At the end of the project, the Subcontractor requested and was allocated the \$179D deduction for the HVAC/HW and lighting systems, totaling \$1.20 per square foot.

### Analysis:

Whether the Energy Management System is part of the HVAC/HW and lighting systems, and therefore EECBP, is a factual determination. If the Energy Management System that controlled the HVAC/HW and lighting systems is part of the EECBP systems for purposes of \$179D(d)(4), then the Subcontractor qualifies as a Designer and could be allocated and claim the \$179D deduction for these systems. If the Energy Management Systems is not part of the EECBP systems for the government building, then the Subcontractor's claim of a partial \$179D deduction should be disallowed.

# Johnson vs Commissioner

The Johnson vs. Commissioner court case best outlines how the responsibilities typically held by a controls contractor qualify a party as a designer. The judge ruled in favor that the HVAC Contractor (name not included), did meet the definition of a designer for the analysis and modification of a sequence of operations for a hospital.

"In order to install new Johnson Controls systems, [HVAC contractor] analyzed the original sequence of operations to determine how the existing systems were intended to operate, inspected the existing systems to determine how they were actually operating in comparison to the original sequence of operations (i.e., to identify any failures or ad hoc changes made to the original sequence of operations), and modified or changed the sequence of operations as necessary to better operate the systems." ... "We conclude that, in modifying the sequence of operations to better operate the systems and programming the modified sequence of operations into the new Johnson control system, [HVAC contractor] created the technical specifications for the installation of the EECBP at issue. On the basis of the foregoing, we conclude that [HVAC contractor] was a "designer" within the meaning of Notice 2008-40, section 3.02 for the project at issue."

*...in modifying the sequence of operations into the new controls system, the contractor created technical specifications*



## Non-Qualified Documents and Activities

The IRS also provides guidance on what would not be included as technical specifications. Specifically called out are shop drawings, as the purpose of these documents is to demonstrate how the professional proposes to conform to the original design concepts, and therefore do not become a part of the "contract documents". In addition, any design activities performed on systems not belonging to the EECBP would not qualify a party as a designer who can receive the 179D deduction.



## Audit Technique Guideline

In addition to technical specifications, the contract is a document that can substantiate the claim of a controls contractor as a designer. In 2022, The IRS published what's known as an Audit Technique Guideline (ATG) for Section 179D. The ATG explains industry-specific examination techniques and includes common, as well as, unique industry issues, business practices, and terminology. Within this guide the IRS outlines the importance of the contract in determining the eligibility of a designer. Specifically, they identify that each party in the construction project should have a contract that specifies responsibilities and should be reviewed to determine if the eligible contractor held responsibilities in the design of the EECBP.

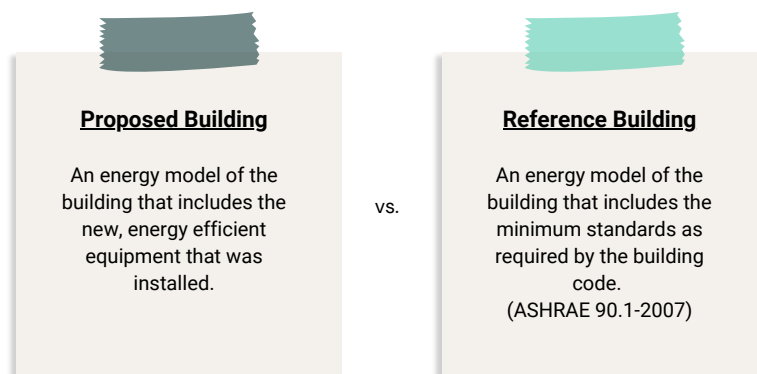
## Contracts

By properly outlining the design responsibilities in regard to the sequence of operations, analyzing an existing system, and modifying or optimizing the energy efficiency of the HVAC or interior lighting system within the contract, you substantiate your qualification as a designer able to claim the 179D deduction. Traditional plan-spec contracts should clearly outline the design responsibilities of the contractor. Projects performed under a Design-Build or Design-Assist contract are great candidates, as the intent of these contract vehicles is to identify the contractor as a responsible party to a portion of the overall design of the project. Direct to owner projects and contracts can be another option that supports the designer claim, since the contractor may be responsible for the design in lieu of a traditional engineering firm.



# 179D Calculation

To determine the eligible 179D deduction amount on a project, we must identify the annual energy cost savings of the building (proposed building) as compared to a similar building designed to the minimum code standards outlined in ASHRAE 90.1-2007 (Reference Building).



*It's important to note that the 179D deduction can never exceed the cost to install the EECBP. For some controls projects, this may limit the amount of the 179D deduction that can be claimed.*

For projects that achieve 25% or greater savings on the annual energy and power costs, a deduction rate is determined based on the % of savings. The eligible rates are also dependent upon the project meeting prevailing wage & apprenticeship requirements.

		Total Annual Energy & Power Costs		
		25% Reduction	Each Additional % Point	50% or Higher Reduction
Prevailing Wage & Apprenticeship	Meets	\$2.50/sq ft	\$0.10/sq ft	\$5.00/sq ft
	Does Not Meet	\$0.50/sq ft	\$0.02/sq ft	\$1.00/sq ft

Inflation adjustments increase the deduction rate each year, as outlined below.

Inflation Adjustments				
Year	Prevailing Wage & Apprenticeship	25% Reduction	Each Additional % Point	50% or Higher Reduction
2023	Meets	\$2.68/sq ft	\$0.11/sq ft	\$5.36/sq ft
	Does Not Meet	\$0.54/sq ft	\$0.02/sq ft	\$1.07/sq ft
2024	Meets	\$2.83/sq ft	\$0.11/sq ft	\$5.65/sq ft
	Does Not Meet	\$0.57/sq ft	\$0.02/sq ft	\$1.13/sq ft





# Building Automation Systems and Energy Efficiency

Projects that incorporate building controls that impact the HVAC or interior lighting systems are great candidates for the Section 179D deduction and often perform well, resulting in significant tax deductions. These systems are installed with the intent to optimize the energy efficiency of the building, increasing the savings significantly above the minimum design standard prescribed by ASHRAE 90.1. Below are examples of BAS features that impact energy savings and often result in increased 179D deductions.

- ⬡ Occupancy schedules that adjust lighting or temperature setpoints
- ⬡ Demand control ventilation for HVAC systems
- ⬡ Occupancy or vacancy sensors to control lighting and HVAC equipment
- ⬡ Variable frequency drives on AHUs, pumps, chillers, or cooling towers
- ⬡ Fan operation only when heating or cooling is required





When seeking to claim the Section 179D deduction for energy-efficient commercial building property, it's crucial to work with a knowledgeable and experienced provider. TaxTaker is an experienced tax consulting firm and can assist with the 179D deduction. Our experienced staff include:

- 📐 **Certified Public Accountants (CPAs):** Can provide tax advice and help with filing for the deduction.
- 📐 **Licensed Professional Engineers:** Required for the site visit and certification process to verify the energy savings and resulting 179D deduction.

## Why TaxTaker?

We have all qualified professionals in house and **offer turn-key service**. Our experts have completed thousands of successful 179D certifications and continue to deliver high-quality studies to our clients. In addition to 179D, we offer other real-estate and energy efficiency incentives including:

- 📐 §45L - New Energy Efficient Home Credit
- 📐 §48 - Investment Tax Credits
- 📐 Cost Segregation
- 📐 §45 - R&D Tax Credits



# ABOUT THE AUTHOR

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VP of Energy Incentives at TaxTaker



Abby Massey is an expert in applying tax incentives for clean energy initiatives. With a B.S. in Civil Engineering from Purdue University and licenses in 45 states plus the District of Columbia, Abby offers significant expertise to her role at TaxTaker as the Vice President of Energy Incentives. Her experience includes leading the largest 179D practice in the country and personally certifying over 1,400 179D deductions. As a LEED Accredited Professional, Abby is dedicated to sustainable building practices. Her role at TaxTaker allows her to focus on optimizing energy incentives for clients by leveraging her in-depth understanding of the 179D program, aiming to improve business sustainability and efficiency.



# References

References here....

