Maximizing the Benefits of The Energy Policy Act

Discover Powerful, Yet, Underutilized Tax-Saving Strategies for Commercial and Investment Properties
Learning Objectives

• Candidates and Opportunities
• IRS Guidelines and Certification Process
• Additional Benefits and Tax Strategies
Engineered Tax Services

- Licensed Engineering Firm with 15 offices across the U.S.A.
- Specializes in engineering studies for tax strategies
- ETS averages $41M in monthly refunds and tax benefits for real estate clients.
- ETS averages $12.5M in monthly refunds and tax benefits for architects, contractors and engineering firms involved in Public Building designs.
- Clients include IKEA, JW Marriott, Boeing, Snowbird Ski Resort, Ford, BMW, Outback, top 100 CPA firms and architectural firms.
- Partner to Energy Star, USGBC, NAIOP and ASHRAE
Energy Tax Benefits

ENERGY POLICY ACT OF 2005

Congress passed legislation in August of 2005 to encourage property owners to build energy-efficient real estate properties to promote reduction in energy consumption. Service dates were from 1/1/06 through 12/31/08.


- The ruling allows up to a $1.80 per sq. ft. tax deduction.
- Deduction is eligible to the entity which funds the investment on a private property or to the designer on a government owned property.
For energy-efficient commercial building property expenditures made by a public entity, the Secretary of the Treasury shall promulgate regulations that allow the deduction to be allocated to the “person primarily” responsible for designing the property in lieu of the public entity.
Who Qualifies as the Designer?

- Person that creates the technical specifications for installation of energy efficient property
- May include architect, engineer, contractor, environmental consultant or energy services provider
- Deduction can be allocated among multiple designers
- Government entity must provide designer with written declaration of the allocation of the deduction
§ 179D Energy Tax Allocation

In an effort to support sustainable building, we are seeking certification under the Energy Policy Act that the following property meets an energy efficiency standard set forth in the Act. To do so, we need to verify the following basic information about the property:

**Property Information:**
- The address of the building is: 
- The total cost of the property placed in service was: 
- The date the property was placed in service was: 
- Amount of Allocation under 179D:

Under penalties of perjury, I declare that I have examined this allocation letter, including any accompanying documents, and to the best of my knowledge and belief, the facts presented in support of this allocation are true, correct, and complete:

**Authorized Representative at the Property:**
- Name: 
- Address: 
- Phone: 
- Signature: 

**Authorized Representative of the Designer:**
- Name: 
- Company: 
- Address: 
- Phone: 
- Signature:
Deduction Limitations

IT IS A DEDUCTION NOT A CREDIT

• Subtitle C—Conservation and Energy Efficiency Provisions
  “SEC. 179D. ENERGY EFFICIENT COMMERCIAL BUILDINGS DEDUCTION

• “(a) IN GENERAL.—There shall be allowed as a deduction an amount equal to the cost of energy-efficient commercial building property placed in service during the taxable year
Crux of The Energy Policy Act

• The IRS Does Not Promote This Benefit

• Tax deduction which requires licensed engineering certification

CPA and Clients left in confusion
- Who can do certification?
The Opportunity

- **Less than 3%** of eligible taxpayers have filed for their energy tax benefits with the IRS
- Millions of taxpayers are due significant refunds since January of 2006 – if they would claim it
- 71 Billion square feet of commercial space nationwide
- Any building with Lighting and HVAC systems 10+ years old is using outdated technology. New energy-efficient lighting and HVAC can save 50% and 20% respectively on electric bills.
  - Lighting accounts for almost 40% of commercial electrical consumption
- Attract tenants and buyers with lower operating expenses
- Ongoing Energy Savings
- Increase property values with the help of the government!
CANDIDATES

- Upgrades, Renovations, Retrofits and New Construction
  - Ideal buildings are 25K square feet and above
- Placed in service since January 1, 2006
- Private and Public Sectors
- Commercial and Residential (4+ stories)
- LEED Certified Buildings
- Green / Energy-Efficient (Energy Star) Buildings
- Architects, Engineers and Contractors who do Public Design

Federal / State and Local:

Offices, Military, Court Houses, Schools (K-12), Universities, Jails, Post Office, Libraries, Fire Stations, Police Stations, etc
Qualifying Whole Building

☑ Applies to Improvements or New Construction

☑ $1.80 per square foot if the whole building meets target savings

☑ Building must reduce total annual combined energy cost by 50% versus ASHRAE 90.1 - 2001
Qualifying Partial Building Systems

1. **Lighting** – Interior and Parking Garages

2. **HVAC** - Heating, Cooling, Ventilation and Hot Water

3. **Building Envelope** – Windows, Doors, Roofs and Insulation

New or Existing Building partial deduction of $.30 - $.60/sf for upgrades to any one of the three major systems.
## Lighting Guidelines

### Building Area Type Lighting Power Density (W/ft²) Minimum Reduction

<table>
<thead>
<tr>
<th>Building Area Type</th>
<th>ASHRAE</th>
<th>25% Reduction</th>
<th>40% Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive Facility</td>
<td>1.500</td>
<td>1.125</td>
<td>0.900</td>
</tr>
<tr>
<td>Convention Center</td>
<td>1.400</td>
<td>1.050</td>
<td>0.840</td>
</tr>
<tr>
<td>Hospital</td>
<td>1.600</td>
<td>1.200</td>
<td>0.960</td>
</tr>
<tr>
<td>Hotel</td>
<td>1.700</td>
<td>1.275</td>
<td>1.020</td>
</tr>
<tr>
<td>Office</td>
<td>1.300</td>
<td>0.975</td>
<td>0.780</td>
</tr>
<tr>
<td>Parking Garage</td>
<td>0.300</td>
<td>0.225</td>
<td>0.180</td>
</tr>
<tr>
<td>Retail</td>
<td>1.900</td>
<td>1.425</td>
<td>1.140</td>
</tr>
<tr>
<td>School/University</td>
<td>1.500</td>
<td>1.125</td>
<td>0.900</td>
</tr>
<tr>
<td>Sports Arena</td>
<td>1.500</td>
<td>1.125</td>
<td>0.900</td>
</tr>
<tr>
<td>Warehouse*</td>
<td>1.200</td>
<td>0.600</td>
<td>0.600</td>
</tr>
</tbody>
</table>

- * Tax deduction of $0.30 per sq. ft begins at power density 25% below ASHRAE/ IESNA 90.1 (2001) limit, and goes to $0.60 per sq. ft. at 40% below ASHRAE/ IESNA limit. (Exception: Warehouses must get to 50% below limit and qualify for $0.60 per sq. ft.)

- Other conditions include bi-level switching, automatic turn-off of lights for new buildings over 5000 sq. ft. and illumination levels satisfying minimum requirements for that space as spelled out in the IES Handbook, 9th edition (2000).
Interim Lighting Rules

• If full model fails, use Interim Rules
• Use lighting power density (LPD) in watts per square foot
• Must be 25%-40% lower LPD
  ➢ (50% reduction for warehouses)
• Generates $.30 to $.60 per SF
• Also requires bi-level switching and occupancy sensors/auto shutoff – in required areas only
  ➢ Bi-Level is required in all occupied spaces enclosed by ceiling to floor walls EXCEPT: Parking Garages, Store Rooms, Restrooms, Public Lobbies, Hotel/Motel rooms
Recognized Bi-level Switching Methods

1. Controlling all lamps and fixtures (e.g., continuous or step dimming)
2. Dual switching alternate rows, fixtures or lamps
3. Switching middle lamp independent of outer lamps in 3-lamp fixtures, providing three levels of lighting power
4. Switching each fixture or each lamp
5. Occupancy sensors controlling various fixtures in the space.

➢ Check local and state energy code, which may define what is accepted as bi-level switching.
Energy Tax Benefits

Interim Rules – Partial Deductions

Improvement

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Deduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>25%</td>
<td>$0.30</td>
</tr>
<tr>
<td>30%</td>
<td>$0.44</td>
</tr>
<tr>
<td>35%</td>
<td>$0.54</td>
</tr>
<tr>
<td>40%</td>
<td>$0.60</td>
</tr>
</tbody>
</table>
The Department of Energy recommends minimum energy efficiency ratios (EERs) and coefficients of performance (COPs) for certain commercial unitary air conditioners and heat pumps, both split and package systems, respectively, as follows:

<table>
<thead>
<tr>
<th>Air-Cooled Products</th>
<th>Efficiency Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;65,000 - &lt;135,000 Btu/h</td>
<td>11.2/11.0 EER for Air Conditioners</td>
</tr>
<tr>
<td></td>
<td>11.0/10.8 EER for Heat Pumps</td>
</tr>
<tr>
<td>&gt;135,000 - &lt;240,000 Btu/h</td>
<td>11.0/10.8 EER for Air Conditioners</td>
</tr>
<tr>
<td></td>
<td>10.6/10.4 EER for Heat Pumps</td>
</tr>
<tr>
<td></td>
<td>3.3 COP @ 47°F for Heat Pumps</td>
</tr>
<tr>
<td></td>
<td>3.2 COP @ 47°F for Heat Pumps</td>
</tr>
</tbody>
</table>
Qualifiers on the HVAC side

1. Geothermal (Ground Source Heat Pumps)
2. Thermal Storage
3. High Efficiency PTAC units in Rental Apartments
4. Centralized HVAC in Rental Apartment Buildings
5. Energy Recovery Ventilation
6. Demand Control Ventilation
7. Chillers in buildings >150,000 sq ft
8. Blow through heaters in no AC Industrial Spaces
9. VAV (variable air volume devices) in buildings >75,000 sq ft
10. Chilled Beam
11. Magnetic Bearing Chillers
12. Gas fired chillers combined with electric chillers to peak shave
Building Envelope

• Wall, Roof and Floor Insulation
  ➢ R-Values = 30+ for Roof / 19+ for Insulation

• Reflectivity

• Doors and Windows
  ➢ U-Values and SHGC = .30 or less
# SUMMARY OF TAX DEDUCTIONS

## Table 1 Summary of Tax Deductions

<table>
<thead>
<tr>
<th></th>
<th>Fully Qualifying Property</th>
<th>Partially Qualifying Property</th>
<th>Interim Lighting Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Savings Requirements</strong></td>
<td>50% energy and power cost savings</td>
<td>16.5% energy and power cost savings</td>
<td>16.5% energy and power cost savings</td>
</tr>
<tr>
<td><strong>Tax Deduction</strong></td>
<td>Cost of qualifying property up to $1.80/ft²</td>
<td>Cost of qualifying property up to $0.60/ft²</td>
<td>Cost of qualifying property up to $0.60/ft²</td>
</tr>
</tbody>
</table>

* Savings refer to the reduction in the energy and power costs of the combined energy for the interior lighting, HVAC, and SHW systems as compared to a reference building that meets the minimum requirements of Standard 90.1-2001.

** The tax deduction is prorated depending on the reduction in LPD. See IRS Notice 2006-52 for the definition of “applicable percentage.”
Over $119,390 Energy Tax Deduction

Hampton Inn, Gainesville – 66,328 Square Feet

- **Envelope** – Insulated Glass, double pane thermal break windows and doors, white reflective single-ply roofing system
- **Lighting** – Low-voltage Fluorescent
- **HVAC** – Natural gas units, split unit systems, motion activated room thermostat, continuous flow hot water service
### Over $290,000 Energy Tax Deduction

<table>
<thead>
<tr>
<th>City</th>
<th>Sq. Ft</th>
<th>179D/sf</th>
<th>Total 179D</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Jose, CA</td>
<td>47,939</td>
<td>$1.20</td>
<td>$57,526.80</td>
</tr>
<tr>
<td>Petaluma, CA</td>
<td>65,580</td>
<td>$1.10</td>
<td>$72,138.00</td>
</tr>
<tr>
<td>Sparks, NV</td>
<td>64,744</td>
<td>$1.10</td>
<td>$71,218.40</td>
</tr>
<tr>
<td>Modesto, CA</td>
<td>74,969</td>
<td>$1.20</td>
<td>$89,962.80</td>
</tr>
</tbody>
</table>
Over $240,000 Energy Tax Deduction

Corporate Centre – Office Towers at Boca Village

Envelope: 106,957 square feet
Lighting (includes garage): 220,220 square feet
HVAC: 106,957 square feet
$292,137 Energy Tax Deduction CLAIMED by the ARCHITECT

<table>
<thead>
<tr>
<th>School</th>
<th>Sq. Ft.</th>
<th>179D/sf</th>
<th>Total 179D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fern Hill School</td>
<td>54,637</td>
<td>$1.10</td>
<td>$60,101</td>
</tr>
<tr>
<td>Auburn Mountainville</td>
<td>183,676</td>
<td>$ .90</td>
<td>$165,308</td>
</tr>
<tr>
<td>Capital High School</td>
<td>127,440</td>
<td>$ .40</td>
<td>$50,976</td>
</tr>
<tr>
<td>Meeker Elementary</td>
<td>39,382</td>
<td>$ .40</td>
<td>$15,752</td>
</tr>
</tbody>
</table>
$488,989 average Energy Tax Deduction CLAIMED by the ARCHITECTS

<table>
<thead>
<tr>
<th>Location</th>
<th>Square Feet</th>
<th>Tax Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School (Main Building &amp; Field House), Cedar Creek, TX</td>
<td>262,134</td>
<td>$504,406.26</td>
</tr>
<tr>
<td>High School, San Marcos, TX</td>
<td>343,037</td>
<td>$370,479.96</td>
</tr>
<tr>
<td>High School, Indianapolis, IN</td>
<td>455,018</td>
<td>$546,021.60</td>
</tr>
<tr>
<td>High School, Modesto, CA</td>
<td>275,939</td>
<td>$458,053.80</td>
</tr>
<tr>
<td>High School, Greer, SC</td>
<td>278,111</td>
<td>$500,599.80</td>
</tr>
<tr>
<td>High School, Santa Ana, CA</td>
<td>320,462</td>
<td>$415,087.70</td>
</tr>
<tr>
<td>High School, Trussville, AL</td>
<td>361,078</td>
<td>$628,275.72</td>
</tr>
<tr>
<td><strong>Collective School Total</strong></td>
<td></td>
<td><strong>$3,422,924.84</strong></td>
</tr>
</tbody>
</table>
Certification Must Include:

1. Qualified individual information
2. Address of the building
3. Statement regarding the energy efficiency of the building (interior lighting, HVAC and/or hot water system)
4. Statement that the reduction has been determined under the Rules of Notices 2006-52 and 2008-40.
5. Statement that field inspections have been performed verifying the energy-saving assets after the property has been placed in service.
6. Statement that the building owner has received an explanation of the energy efficiency features and projected annual energy costs.
7. Statement that approved software was used for modeling.
8. A list of qualifying assets and projected annual energy costs.
The IRS says only “Qualified” Individuals can prepare a 179D and must meet these three points:

(1) Is not related (within the meaning of §45(e)(4)) to the taxpayer claiming the deduction under § 179D.

(2) Is an engineer or contractor that is properly licensed in the jurisdiction in which the building is located.

(3) Has represented in writing to the taxpayer that he or she has the qualifications to provide the certification or to perform the inspection and testing.

➢ The CPA should verify that BOTH the inspecting and signing individual is “qualified”, as defined by the IRS.
Why does all this matter?

Circular 230

The Tax Preparer has an obligation to make sure the 179D preparation is done correctly.

What is CPA’s Exposure?

IRC Code Section 6694 penalties can be substantial and if a position taken on a tax return was not based upon the substantial authority standard and therefore considered unreasonable. These penalties are in an amount:

equal to the greater of $1,000 or

50 percent of the income derived (or to be derived) by the tax return preparer with respect to the return or claim.

To ensure compliance with Treasury Regulations (31 CFR Part 10, §10.35), we inform you that any tax advice contained in this correspondence was not intended or written by us to be used, and cannot be used by you or anyone else, for the purpose of avoiding penalties imposed by the Internal Revenue Code.
Additional Benefits and Tax Strategies for Building Owners and Tenants
Local and State Benefits

- Local utility rebates
- State tax incentives
- Loan programs
- Energy Policy Act

Visit www.dsireusa.org for a clickable map and a listing of all federal and state incentives for energy retrofits
### Financial Incentives

- **Corporate Tax Credit**
  - Renewable Energy Production Tax Credit
  - Renewable Energy Technology Investment Tax Credit
- **Green Building Incentive**
  - Miami-Dade County - Green Buildings Incentive Program
- **Industry Recruitment/Support**
  - North Carolina - Targeted Industry Incentive Programs
- **Local Incentive Programs**
  - Orange County - Solar Hot Water Incentive Program
- **Other Incentive**
  - Lawrence Edison - Solar Water Heating Program
- **Production Incentive**
  - Florida Electric Utilities - Solar Feed-in Tariff
  - Florida Utility Commission - Solar Energy Programs
- **Property Tax Exemption**
  - Florida Renewable Energy Property Tax Exemption
- **Sales Tax Exemption**
  - Florida Energy Systems Equipment Sales Tax Exemption
- **Sales Tax Refund**
  - Florida Renewable Energy Sales Tax Refund
- **State Grant Program**
  - Florida Electric Utilities Grants Program
- **State Rebate Program**
  - Florida Energy Efficiency Incentives Program
- **Utility Grant Program**
  - Florida Electric Utilities - Energy Efficiency Grant Programs
  - Florida Public Service Commission - Home Energy Efficiency Program
- **Utility Loan Program**
  - Florida Electric Utilities - Solar and Efficiency Loans
  - Florida Electric Utilities - Home Energy Conservation Loans
  - Florida Electric Utilities - Large-Scale Energy Loans
  - Florida Public Service Commission - Residential Efficiency Loan Program
  - Florida Public Service Commission - Residential Conservation Loan Program
- **Utility Rebate Program**
  - Florida Electric Utilities - Residential Energy Efficiency Rebate Programs
  - Florida Public Service Commission - Residential Energy Efficiency Rebate Programs
  - Florida Public Service Commission - Large-Scale Energy Efficiency Rebate Programs
  - Florida Public Service Commission - Large-Scale Conservation Rebate Programs
Abandonment Deduction

When a building owner retrofits, the item that is being removed still has value.

The original cost of the item such as Lighting or HVAC equipment would normally have 39 years of depreciation. We can take the balance of the years of depreciation that has value and take it as a one time business deduction based on the original cost of the item. This is called an abandonment tax deduction.

This tax incentive can be substantial!
EXAMPLE: 275K Square Foot Office Building
7 year old lighting System

TOTAL DEDUCTIONS After Tax

<table>
<thead>
<tr>
<th></th>
<th>Deductions/Depreciation</th>
<th>Federal</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPAct</td>
<td>$165,000</td>
<td>$57,750</td>
</tr>
<tr>
<td>Abandonment</td>
<td>$75,322</td>
<td>$26,363</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$240,322</strong></td>
<td><strong>$84,113</strong></td>
</tr>
</tbody>
</table>

$84,113 Net After Tax

REMEMBER:
STATE BENEFITS / UTILITY REBATES / ENERGY SAVINGS / LOWERED MAINTENANCE COSTS
FURTHER REDUCE THE PAYBACK PERIOD AND INCREASE THE RETURN ON INVESTMENT!
In Summary, Maximizing the Benefits of The Energy Policy Act

Generates money for investments
Increase Cash Flow through Minimizing Tax Liabilities and Reducing Insurance Premiums

Increases ROI and reduces payback periods on investments

Important: Planning and Execution
About Engineered Tax Services

Engineered Tax Services is a licensed professional engineering firm providing energy tax, cost segregation and abandonment studies. ETS certifies projects nationwide.

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www.engineeredtaxservices.com

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