



Soup to Nuts: Green Tax Benefits 2011

Walter Wang, J.D., LL.M.
 Managing Director
 Sunflower Tax
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Where are we going today?



- Residential Energy Efficiency
- Residential Renewable Energy
- Commercial Energy Efficiency
- Commercial Renewable Energy
- Plug-in Electric Vehicles

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Residential Energy Efficiency

- Significant changes in 2011
 - 2010 – 30% federal income tax credit, up to a maximum if \$1,500 for qualifying energy efficient improvements
 - 2011 – Not as generous:
 - 10% federal tax credit on qualified energy efficiency improvements + amount of residential energy property expenditures paid or incurred during the taxable year.
 - \$500 lifetime limitation

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Residential Energy Efficiency

- What are qualified energy efficiency improvements?
 - Insulation
 - Exterior windows (including skylights)
 - Exterior doors
 - Certain metal and asphalt roofs with appropriate cooling granules
- What are residential energy property expenditures?
 - Energy efficient building property
 - Electric heat pump water heater, central air conditioners, natural gas, propane, or oil water heater, and stove which uses biomass fuel to heat the residence or heat water.
 - Qualified natural gas, propane, or oil furnace or hot water boiler
 - Advanced main air circulating fan

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Residential Energy Efficiency

- Individual Item Limitations:
 - \$200 on exterior windows and skylights
 - \$300 on energy efficient building property
 - \$150 on qualified natural gas, propane, or oil furnace or hot water boiler
 - \$50 on advanced main air circulating fan

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Residential Energy Efficiency

- Other Requirements
 - Must be installed on a home in the US and owned and used by the homeowner as their principle residence
 - Original use must begin with the homeowner
 - Must reasonably expect that the property remain in use for at least 5 years.

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Residential Energy Efficiency

- Expenditures made from qualified subsidized energy financing
- Change in the tax basis of the property
- Get it while it's hot!
 - Credit expires December 31, 2011
 - File IRS Form 5695 when you file your federal income tax return

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Residential Renewable Energy

- Not much has changed between 2010 and 2011
 - What does that mean?
 - 30% tax credit for:
 - Solar electric property
 - Solar water heating property
 - Fuel cell property
 - Small wind energy property
 - Geothermal heat pump property
 - Limitations for fuel cell:
 - \$500 per each ½ kilowatt of capacity
 - Example:
 - Residence Requirements

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Residential Renewable Energy

- Credit can be claimed against Alternative Minimum Tax
- Unused credit can be carried forward to the succeeding tax year
- Labor costs including onsite prep, assembly, or original installation, and for interconnection piping or wiring can be included in the costs
- Roofing issues
- Receipt of CSI rebate – This amount is not subject to tax to the homeowner for both federal income tax purposes and California state income tax purposes

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Residential Renewable Energy

- Tax basis of property increases by improvement amount less the amount of tax credit claimed.
- What happens if you live in a condo?
 - As homeowner and member of the association, you are treated as making your proportionate share of the expenditures
- Home Office Issues
 - Less than 80% used as a home
 - More than 80% used as a home
- Credit expires on December 31, 2016
- File IRS Form 5695

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Commercial Energy Efficiency

- 179D Deduction (EPACT)
 - Deduction for energy efficient commercial building property that is placed into service during the taxable year.
 - Maximum Amount of Deduction:
 - \$1.80 x Square Footage of the Building
 - If you have used this deduction in a prior year, you must subtract the amount previously taken from the maximum allowed.

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Commercial Energy Efficiency

- What is “energy efficient commercial building property”?
 - Must be subject to depreciation (or amortization)
 - Must be installed on or in a building that is:
 - Located in the US
 - Within the scope of ASHRAE Standard 90.1-2001
 - Installed as part of:
 - The interior lighting system
 - The heating, cooling, ventilation, and hot water systems, or
 - The building envelope

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Commercial Energy Efficiency

- What is “energy efficient commercial building property”?
 - The installation must be certified as being installed as part of a plan designed to **reduce the total annual energy and power costs** with respect to the interior lighting, heating, cooling, ventilation, and hot water systems of the building **by 50% or more when compared to a reference building** which meets the minimum requirements of ASHRAE Standard 90.1-2001.

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Commercial Energy Efficiency

- What is a reference building?
 - Building that is located in the same climate zone as the taxpayer’s building and is otherwise comparable to the taxpayer’s building except that its interior lighting systems, heating, cooling, ventilation, and hot water systems and building envelope meet the minimum requirements of ASHRAE Standard 90.1-2001.

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Commercial Energy Efficiency

- Reduced Deduction Available if the 50% Requirement is Not Met
 - Partial deduction available if:
 - There is certification that any of the following systems achieves a specified target:
 - Interior Lighting Systems
 - Heating Systems
 - Cooling Systems
 - Ventilation Systems
 - Hot Water Systems
 - Building Envelope

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Commercial Energy Efficiency

- Reduced Deduction Available if 50% Requirement is Not Met
 - Up to a maximum amount of partial deduction:
 - \$.60 x Square Footage of the Building
 - Reduction for any amounts previously taken.

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Commercial Energy Efficiency

- Reduced Deduction Available if 50% Requirement is Not Met
 - Interim Rule for Partial Allowance for Energy Efficient Lighting Property
 - Achieve a reduction in lighting power density of at least 25%
 - 50% for a warehouse
 - Must meet the minimum requirements in Table 9.3.1.1 or Table 9.3.1.2 of Standard 90.1-2001
 - Have controls and circuiting that comply fully with the mandatory and prescriptive requirements of Standard 90.1-2001
 - Include provision for bi-level switching in all occupancies except hotel and motel guest rooms, restrooms, and public lobbies; and
 - Meet the minimum requirements for calculated lighting levels as set forth in the IESNA Lighting Handbook, Performance and Application (9th Edition)

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Commercial Energy Efficiency

- Reduced Deduction Available if 50% Requirement is Not Met
 - The Interim Rule for Partial Allowances related to energy efficient lighting includes unconditioned garage spaces
 - Structure that:
 - Encloses space affording shelter to persons, animals, or property within exterior walls (or within exterior and party walls) and a roof;
 - Is not a single family house, a multi-family structure of three stories or fewer above grade, a manufactured house (mobile home or modular); and
 - Is unconditioned attached or detached garage space as referenced by Tables 9.3.1.1 and 9.3.1.2 of Standard 90.1-2001.

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Commercial Energy Efficiency

- Reduced Deduction Available if 50% Requirement is Not Met
 - Partial Deduction for Heating, Cooling, Ventilation, and Hot Water Property
 - Must reduce the total annual energy and power costs with respect to combined usage of the building's heating, cooling, ventilation, hot water, and interior lighting systems by 16 2/3^{ths} % or more when compared to a reference building that meets the requirements of Standard 90.1-2001.

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Commercial Energy Efficiency

- Reduced Deduction Available if 50% Requirement is Not Met
 - Partial Deduction for Heating, Cooling, Ventilation, and Hot Water Property
 - The reduction must be accomplished solely through energy and power cost reductions for the heating, cooling, ventilation, and hot water systems. Reductions in receptacles, process loads, refrigeration, cooking, and elevators, are not taken into account.

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Commercial Energy Efficiency

- Reduced Deduction Available if 50% Requirement is Not Met
 - Partially Deduction for Qualifying Energy Efficient Building Envelope Property
 - property is installed as part of the building envelope of the building and
 - Must reduce the total annual energy and power costs with respect to combined usage of the building's heating, cooling, ventilation, hot water, and interior lighting systems by 16 2/3^{ths} % or more when compared to a reference building that meets the requirements of Standard 90.1-2001.

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Commercial Energy Efficiency

- Reduced Deduction Available if 50% Requirement is Not Met
 - Partially Deduction for Qualifying Energy Efficient Building Envelope Property
 - Taxpayers may choose to use 10% instead of 16 2/3^{ths} % for purposes of energy efficient building property. However, if they choose to do so, the requirements for other partially qualifying improvements must hit 20%.

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Commercial Energy Efficiency

- Approved Software For Purposes of Determining Whether the Efficiency Requirements Are Met:
 - **DOE-2.2**
 - Version 47d
 - **EnergyGauge**
 - Version 3.22
 - Version 3.21
 - Version 3.2
 - **EnergyPlus**
 - Version 4.0
 - Version 3.1.0.027
 - Version 3.0.0.028
 - Version 2.2.0.023

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Commercial Energy Efficiency

- Approved Software For Purposes of Determining Whether the Efficiency Requirements Are Met:
 - **EnerSim**
 - Version 9.02
 - **eQUEST**
 - Version 3.63b
 - **Green Building Studio**
 - Version 3.4
 - **Hourly Analysis Program (HAP)**
 - Version 4.41
 - Version 4.40
 - **IES <Virtual Environment>**
 - Version 6.1
 - **TRACE 700**
 - Version 6.2.4
- Additionally Details on Software:
 - http://www.eere.energy.gov/buildings/qualified_software.html

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Commercial Energy Efficiency

- Special Rules Regarding Section 179D Deduction for Government Owned Buildings
 - Applies to Federal, State, Local Government or Political Subdivisions
 - Section 179D Deduction **may be allocated** to the Designer.

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Commercial Energy Efficiency

- Special Rules Regarding Section 179D Deduction for Government Owned Buildings
 - Who is a designer?
 - The Designer can be a person that creates the technical specifications for installation of energy efficient commercial building property. This includes 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. A person who merely installs, repairs, or maintains the property is not the designer.

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Commercial Renewable Energy

- No changes to the Investment Tax Credit from 2010
- What does that mean?
 - 30% Tax Credit
 - Fuel Cell Property
 - Solar Electric Property
 - Solar Property used to heat or cool or provide hot water for use in a structure
 - Solar Property used to provide solar process heat
 - Solar Property which uses solar energy to illuminate the inside of a structure using fiber-optic distributed sunlight/
 - Small Wind Property (nameplate capacity of 100 kilowatts or less)
 - Geothermal

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Commercial Renewable Energy

- General Rules
 - The tax credit can be taken on the cost of the energy property including installation costs and the cost for freight incurred in construction of the energy property.
 - Unused Credit can be carried back 1 year and carried forward for 20 years.
 - Must reduce tax basis of the energy property by 50% of the credit amount.
 - Limitation of Credit for Fuel Cells:
 - Credit cannot exceed an amount equal to \$1,500 for each .5 kilowatt of capacity of the product.
 - IRS Form 3468

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Commercial Renewable Energy

- Grant in Lieu of Tax Credit (Section 1603 of the Recovery Act)
- What is it?
 - Cash payment within 60 days after project is placed into service instead of claiming a tax credit when filing your tax return.
 - Applies to qualified energy property if placed into service between January 1, 2009 and December 31, 2011 (regardless of when construction begins) or placed into service after 2011 and before the credit provision expires, so long as construction began between January 1, 2009 and December 31, 2011.

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Commercial Renewable Energy

- Eligible recipient for the cash grant
 - Anyone who is the original user of "specified energy property"
 - Original user may be the owner or lessee of the property
 - Requirements:
 - Both lessor and lessee must be eligible
 - Lessor must waive right to claim the grant, PTC, and ITC
 - Lessee must agree to include 50% of the grant in gross income ratably over a 5 year recapture period

Commercial Renewable Energy

- If the cost basis of the property exceeds \$500,000, then an independent accountant must certify and attest to the accuracy of all costs claimed as part of the basis of the property
 - Request for payments of \$1 million or more must submit an independent accountant's examination opinion attesting to the accuracy.
 - Request for payments of less than \$1 million but whose eligible cost basis is more than \$500,000 may submit a report of Agreed Upon Procedure prepared by their independent accountant.
- 5 Year recapture period of the Grant
- 50% of Grant reduces the tax basis of the property
- Grant may be assigned to a financial institution

Commercial Renewable Energy

- Who is not eligible for the grant?
 - Federal, state, and local governments
 - Tax exempt organizations
 - Clean renewable energy bond lenders, cooperative electric companies, and governmental bodies (includes Indian Tribal Governments)
 - Any pass-through entity having an equity owner who is described above
 - Unless the interest is owned through a taxable "C" corporation
 - Foreign persons or entities
 - Unless more than 50% of the foreign person or entity's gross income is derived from the property and is subject to US federal income tax.

Commercial Renewable Energy

- “Placed into Service”
 - Property is placed into service when it is ready and available for its intended use (substantially complete and ready to produce energy)
 - Report provided by the project engineer, or the equipment vendor, or an independent third party that certifies that the equipment has been installed, tested, and is ready and capable of being used for its intended purpose.
 - Requires an interconnection agreement (only for properties that are interconnected with a utility).

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Commercial Renewable Energy

- If property is not placed into service by the end of 2011, then what?
 - When physical work of a significant nature begins.
 - Physical work of a significant nature includes physical work that has taken place under a binding written contract for the manufacture, construction, or production of specified energy property for use by the applicant’s facility provided the contract is entered into prior to the work taking place.
 - Does not include preliminary activities such as planning or designing, securing financing, exploring, or researching.
 - Does not include clearing a site, test drilling to determine soil conditions, or excavation to change the contour of the land.

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Commercial Renewable Energy

- If property is not placed into service by the end of 2011, then what?
 - 5% Safe Harbor
 - Pay or incur 5% or more of the total cost of the energy property before the end of 2011.

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Commercial Renewable Energy

- Bonus Depreciation:
 - Extended to January 1, 2013
 - Special rule for property acquired and placed into service between September 8, 2010 and December 31, 2011 – 100% Bonus Depreciation
 - For all other periods bonus depreciation is 50%

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Commercial Renewable Energy

Bonus Depreciation 100%				
Cost Basis		400,000		
ITC	30%	120,000		
Adjusted Basis		340,000		
Bonus Depreciation	100%	340,000		
Tax Effectuated	35%	119,000		
Benefit		239,000		
Bonus Depreciation 50%				
Cost Basis		400,000		
ITC	30%	120,000		
Adjusted Basis		340,000		
Bonus Depreciation	50%	170,000		
Adjusted Basis		170,000		
Y1 Depreciation	20%	34,000		
Total Depreciation		204,000		
Tax Effectuated	35%	71,400		
Benefit		132,600		

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Plug-In Electric Vehicles

- Nissan Leaf or Chevy Volt anyone?
- What about a Fisker Karma?
- Tax Credit available
 - Businesses and Individuals
 - At a minimum - \$2,500
 - If the car has not less than a 5kwh battery, then add \$417
 - Add an additional \$417 for each kwh above 5kwh
 - Maximum amount is \$5,000
 - Maximum credit available is \$7,500.

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Plug-In Electric Vehicles

- Requirements:
 - Original use must commence with the taxpayer
 - Acquired for use or lease by the taxpayer and not for resale
 - Gross Vehicle Weight rating of less than 14,000 lbs.
 - Minimum battery capacity of 4kwh
 - Must be capable of being charged from an external source of electricity
 - Must be used in the US.
- Tax credit **cannot** be carried forward
- File IRS Form 8936
- IRS may require VIN's in the future

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Plug-In Electric Vehicles

- Charging Stations:
 - 30% tax credit for qualified alternative fuel vehicle refueling property
 - In addition to electric charging stations, this applies to ethanol, natural gas, compressed natural gas, liquefied natural gas, liquefied petroleum gas, or hydrogen, and certain other fuel mixtures.
 - \$30,000 limit for businesses
 - \$1,000 limit for individuals
 - Tax credit expires December 31, 2011 for most alternative fuel vehicle refueling property, except for hydrogen (December 31, 2014)
 - IRS Form 8911

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Thank You!

- Contact Information
 - walter.wang@sunflowertax.com
 - (619) 231-2712

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