Guide to Federal Tax Incentives for Commercial Heat Pumps

Federal Tax Incentives

CLIMATEMASTER®
Water-Source Heat Pump Systems

HIGHLIGHTS

Federal Income Tax Credit:

- 10% of total system cost
- No limit to total credit amount
- Can be used to offset AMT tax
- Can be used in more than one year
- 10% grant available in lieu of tax credit (2009, 2010 & 2011)
- Can be combined with solar and wind tax credits
- Can be combined with energy-efficient building deduction

Accelerated Depreciation:

- 5 year MACR depreciation on entire system
- Eligible for 50% first-year bonus depreciation for October 4, 2008 through September 7, 2010
- Eligible for 100% first-year bonus depreciation for September 8, 2010 through December 31, 2011
- Eligible for 50% first-year bonus depreciation for 2012

Eligibility:

- Building located in U.S.
- Original use begins with taxpayer
- Installed between 10/3/2008 and 12/31/2016

BUSINESS ENERGY INVESTMENT TAX CREDIT

On October 3rd 2008, the federal business energy investment tax credit was expanded significantly by the Energy Improvement and Extension Act of 2008 (H.R. 1424) and further expanded by The American Recovery and Reinvestment Act of 2009, enacted in February 2009. Through this resolution H.R. 1424, geothermal heat pumps were added to the definition of energy property under section 48(a) of the Internal Revenue Code, which provides a 10% tax credit for spending on property placed in service through the end of 2016.

Energy property is classified as 5-year depreciable property in section 168(e)(3)(B)(vi) of the Internal Revenue Code, meaning the cost of the property can be deducted on an accelerated MACRS basis. For depreciation purposes, the basis must be reduced by one half of the tax credit. For a corporation in a 35% tax bracket, the MACRS depreciation provides additional tax savings equal to 33.25% of the energy property spending within the first 5 years, and this is largely front-loaded. By comparison, conventional heating and cooling systems are usually depreciated on a 39-year straight line basis, and would provide only 4.5% in tax savings over the first 5 years.

ELIGIBLE GEOTHERMAL HEAT PUMP ENERGY PROPERTY

The tax credit may be claimed for spending on equipment which uses the ground or ground water as a thermal energy source to heat a structure or as a thermal energy sink to cool a structure. The structure must be located in the United States. Spending includes costs of installation.

EXCLUDED PROPERTY

The credit cannot be claimed for spending on equipment used solely for a purpose other than heating or cooling a structure, on previously used equipment, or on equipment that is used by an entity not subject to U.S. income taxes. These entities include schools, government agencies, charities, and other tax-exempt organizations. This also precludes tax-exempt entities from leasing energy property. However, energy purchase contracts are a mechanism that has been used to provide financing to these groups by the solar industry.

PLACED IN SERVICE REQUIREMENT

The credit can only be claimed on spending for equipment that is "placed in service" during the period from October 4th, 2008 to December 31st, 2016. Equipment is considered to be placed in service when it has been fully installed and is capable of being used by the owner for its intended purpose. Minor tasks such as fixing punch list items may remain, but the taxpayer must have taken legal title of the equipment and have all necessary licenses and permits needed for its operation.

TAX CREDIT AMOUNT AND MAXIMUM LIMIT

A business can claim a tax credit equal to 10% of its spending on eligible geothermal heat pump property without a maximum credit limit. The tax credit can be used to offset both regular income taxes and alternative minimum taxes (AMT). If the tax credit exceeds the income tax liability, the loss can be carried back one taxable year and any remaining balance can be carried forward into future years.

OWNERSHIP CONSIDERATIONS

Geothermal heat pump tax credits and depreciation deductions can only be claimed by the owner of the eligible property. This includes regulated utilities that own energy property.

An owner that cannot use the tax credits can explore other options such as sale-leasebacks, partnership "flip" structures, or energy purchase contracts. However, passive loss and at-risk restrictions make it difficult for individuals, S corporations, or closely-held C corporations to act as sources for the required capital in these arrangements. Widely-held corporations are not subject to these restrictions, and are the most appropriate source of financing.

CLAIMING THE CREDIT

IRS Form 3468 is used to claim the Energy Credit. Visit www.irs.gov to download the latest tax form and instructions.

BONUS DEPRECIATION

Energy property placed in service from 2008 to 2012 is eligible for a special first year "bonus" depreciation. For installations placed in service between October 4, 2008 and September 7, 2010 an allowance of 50% of the basis may be taken. For systems placed in service from September 8, 2010 through December 31, 2011, 100% of the basis is eligible for first year depreciation. An allowance of 50% of the basis may be taken for system placed in service during 2012. The remaining basis, if any, is then depreciated in accordance with the 5-year MACRS schedules. Refer to IRS Publication 946 for more information regarding how to depreciate property.

BUSINESS CREDIT EXAMPLES

New Construction Example with 50% Bonus Depreciation:

A corporation spends $1,000,000 to install a geothermal heat pump system in its new office building. They moved into the building during the 4th quarter of 2012. The corporation is in a 40% tax bracket when state income tax is included.

2012 Tax Credit:	$1,000,000 x 10%	= $100,000
Depreciable Basis:	$1,000,000 – ($100,000 / 2)	= $950,000
2012 Bonus Tax Benefit:	$950,000 x 50% bonus x 40% tax rate	= $190,000
2012 MACRS Tax Benefit:	$475,000 x 5% Q4 MACRS x 40% tax rate	= $9,500
2013 " " "	$475,000 x 38% MACRS x 40% tax rate	= $72,200
2014 " " "	$475,000 x 22.80% MACRS x 40% tax rate	= $43,320
2015 " " "	$475,000 x 13.68% MACRS x 40% tax rate	= $25,992
2016 " " "	$475,000 x 10.94% MACRS x 40% tax rate	= $20,786
2017 " " "	$475,000 x 9.58% MACRS x 40% tax rate	= $18,202

Total Tax Savings over 5 Years: $480,000

Retrofit Example with 50% Bonus Depreciation:

A corporation has an existing building that uses a water-loop heat pump system with a boiler and cooling tower. They spend $500,000 to remove the boilers, install a geothermal heat exchange loop, and upgrade their heat pumps to high-efficiency geothermal models. They started the project in 2012 and it became operational in the 1st quarter of 2013. The corporation is in a 40% tax bracket when state income tax is included.

2013 Tax Credit:	$500,000 x 10%	= $50,000
Depreciable Basis:	$500,000 – ($50,000 / 2)	= $475,000
2013 Bonus Tax Benefit:	$475,000 x 50% bonus x 40% tax rate	= $95,000
2013 MACRS Tax Benefit:	$237,500 x 35% Q1 MACRS x 40% tax rate	= $33,250
2014 " " "	$237,500 x 26% MACRS x 40% tax rate	= $24,700
2015 " " "	$237,500 x 15.60% MACRS x 40% tax rate	= $14,820
2016 " " "	$237,500 x 11.01% MACRS x 40% tax rate	= $10,459.50
2017 " " "	$237,500 x 11.01% MACRS x 40% tax rate	= $10,459.50
2018 " " "	$237,500 x 1.38% MACRS x 40% tax rate	= $1,311

Total Tax Savings over 5 Years: $240,000

Replacement Units Example with 50% Bonus Depreciation:

A corporation spends $100,000 to install new geothermal heat pumps in its existing building. The geothermal heat pumps are replacing older geothermal heat pumps that were originally installed in 1992. The project is completed in the 3rd quarter of 2012. The corporation is in a 40% tax bracket when state income tax is included.

2012 Tax Credit:	$100,000 x 10%	= $10,000
Depreciable Basis:	$100,000 – ($10,000 / 2)	= $95,000
2012 Bonus Tax Benefit:	$95,000 x 50% bonus x 40% tax rate	= $19,000
2012 MACRS Tax Benefit:	$47,500 x 15% Q3 MACRS x 40% tax rate	= $2,850
2013 " " "	$47,500 x 34% MACRS x 40% tax rate	= $6,460
2014 " " "	$47,500 x 20.40% MACRS x 40% tax rate	= $3,876
2015 " " "	$47,500 x 12.24% MACRS x 40% tax rate	= $2,326
2016 " " "	$47,500 x 11.30% MACRS x 40% tax rate	= $2,147
2017 " " "	$47,500 x 7.06% MACRS x 40% tax rate	= $1,341

Total Tax Savings over 5 Years: $48,000

ADDITIONAL TAX INCENTIVES AVAILABLE TO GEOTHERMAL HEAT PUMP PURCHASERS

Renewable Energy Grant (1603 Program)

Section 1603 of H.R. 1, the American Recovery and Reinvestment Act, provides for a 10% grant in lieu of the energy credit for eligible geothermal heat pump energy property placed in service during 2009, 2010 or 2011, or beyond 2011 for those projects that began construction during that time period. The grants are available upon request and will be paid within 60 days of the date of receipt of the application, or within 60 days of the date the energy property is placed in service, whichever comes later. The grant eligibility requirements are the same as those for the energy credit. The grant provides an option that can be taken in lieu of the energy credit to improve cash flow. Applications must be submitted before October 1, 2012.

Energy-Efficient Commercial Buildings Tax Deduction

Section 179D of the Internal Revenue Code provides a tax deduction of up to $1.80 per sq. ft. to owners, or if government-owned, designers, of new or existing commercial buildings that achieve a 50% annual energy cost savings compared to a reference building that meets the minimum requirements of ASHRAE Standard 90.1-2001. The savings are determined from the combined heating, cooling, hot water and lighting use. If the full savings is not achieved, a partial deduction of up to $.60 per square foot can be taken for a heating, cooling, and hot water system that provides at least 1/3 of the required 50% annual savings. The energy savings is determined by a calculation using "qualified" software that is certified by a "qualified" individual. See IRS Notices 2006-56 and 2008-40 for details. The tax deduction is limited to the actual spending for the energy efficient commercial building property, or $1.80 per sq. ft., whichever is less. The property must be placed in service from January 1, 2006 through December 31, 2013.

Government Building Example

An architect designs an 80,000 sq. ft. state office building that uses a geothermal heat pump system and other measures to achieve a 50% savings in combined heating, cooling, hot water, and lighting energy use over a code-minimum reference building. The energy property utilized cost $640,000 ($8 per sq. ft.) to install. The architect is in a 40% tax bracket when state income tax is included. The architect receives the following tax benefit:

2011 Tax Deduction: 80,000 x $1.80 = $144,000
2011 Tax Benefit: $144,000 x 40% tax rate = $57,600

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