9/15/09

Federal
Incentives/Policies for Energy Efficiency

Financial Incentives

Energy-Efficient Commercial Buildings Tax Deduction

Last DSIRE Review: 10/07/2008

Incentive Type:	Corporate Deduction
State:	Federal
Eligible Efficiency Technologies:	Equipment Insulation, Water Heaters, Lighting, Lighting Controls/Sensors, Chillers, Furnaces, Boilers, Heat pumps, Air conditioners, Caulking/Weather-stripping, Duct/Air sealing, Building Insulation, Windows, Doors, Siding, Roofs, Comprehensive Measures/Whole Building
Applicable Sectors:	Commercial, Builder/Developer, State Government, Fed. Government, (Deductions associated with government buildings are transfered to the designer)
Amount:	$0.30-$1.80 per square foot, depending on technology and amount of energy reduction
Maximum Incentive:	$1.80 per square foot
Equipment Requirements:	Must meet certification requirements
Web Site:	http://www.efficientbuildings.org
Authority 1:	26 USC § 179D
Date Enacted:	8/8/2005 (subsequently amended)
Date Effective:	1/1/2006
Expiration Date:	12/31/2013
Authority 2:	H.R. 1424: Div. B, Sec. 303 (The Energy Improvement and Extension Act of 2008)
Date Enacted:	10/3/2008
Expiration Date:	12/31/2013

Summary:
The federal Energy Policy Act of 2005 established a tax deduction for energy-efficient commercial buildings applicable to qualifying systems and buildings placed in service from January 1, 2006, through December 31, 2007. This deduction was subsequently extended through 2008, and then again through 2013 by Section 303 of the federal Energy Improvement and Extension Act of 2008 (H.R. 1424, Division B), enacted in October 2008.

A tax deduction of $1.80 per square foot is available to owners of new or existing buildings who install (1) interior lighting; (2) building envelope, or (3) heating, cooling, ventilation, or hot water systems that reduce the building's total energy and power cost

by 50% or more in comparison to a building meeting minimum requirements set by ASHRAE Standard 90.1-2001. Energy savings must be calculated using qualified computer software approved by the IRS. Click here for the list of approved software.

Deductions of $0.60 per square foot are available to owners of buildings in which individual lighting, building envelope, or heating and cooling systems meet target levels that would reasonably contribute to an overall building savings of 50% if additional systems were installed.

The deductions are available primarily to building owners, although tenants may be eligible if they make construction expenditures. In the case of energy efficient systems installed on or in government property, tax deductions will be given to the person primarily responsible for the systems' design. Deductions are taken in the year when construction is completed.

The IRS released interim guidance (IRS Notice 2006-52) in June 2006 to establish a process to allow taxpayers to obtain a certification that the property satisfies the energy efficiency requirements contained in the statute. IRS Notice 2008-40 was issued in March of 2008 to further clarify the rules. NREL published a report (NREL/TP-550-40228) in February 2007 which provides guidelines for the modeling and inspection of energy savings required by the statute.

Click here for answers to frequently asked questions provided by the *Commercial Building Tax Deduction Coalition.*

For more information, visit the Energy Star web site.

Contact:

Public Information - IRS
U.S. Internal Revenue Service
1111 Constitution Avenue, N.W.
Washington, DC 20224
Phone: (800) 829-1040
Web Site: http://www.irs.gov

Residential Energy Conservation Subsidy Exclusion (Corporate)

Last DSIRE Review: 07/27/2009

Incentive Type:	Corporate Exemption
State:	Federal
Eligible Efficiency Technologies:	Yes; specific technologies not identified
Eligible Renewable/Other Technologies:	Solar Water Heat, Solar Space Heat, Photovoltaics
Applicable Sectors:	Residential, Multi-Family Residential
Amount:	100% of the subsidy
Terms:	Applies to energy conservation measures on dwelling units only
Web Site:	http://www.irs.gov/publications/p525/index.html
Authority 1:	26 USC § 136
Date Enacted:	1992

Summary:

According to Section 136 of the U.S. Code, energy conservation subsidies provided by public utilities,* either directly or indirectly, are nontaxable: "Gross income shall not include the value of any subsidy provided (directly or indirectly) by a public utility to a customer for the purchase or installation of any energy conservation measure." (This exclusion does *not* apply to electricity-generating systems registered as "qualifying facilities" under the Public Utility Regulatory Policy Act of 1978.)

The term "energy conservation measure" includes installations or modifications primarily designed to reduce consumption of electricity or natural gas, or improve the management of energy demand. Eligible dwelling units include houses, apartments, condominiums, mobile homes, boats and similar properties. If a building or structure contains both dwelling and other units, any subsidy must be properly allocated.

Given the definition of "energy conservation measure," there is strong evidence that utility rebates for residential solar-thermal projects and solar-electric systems may be nontaxable. However, the IRS has not ruled definitively on this issue. For taxpayers considering using this provision for renewable energy systems, consultation with a tax professional is advised.

Other types of utility subsidies that may come in the form of credits or reduced rates may also be nontaxable, according to IRS Publication 525:

"Utility rebates. If you are a customer of an electric utility company and you participate in the utility's energy conservation program, you may receive on your monthly electric bill either: a reduction in the purchase price of electricity furnished to you (rate reduction), or a nonrefundable credit against the purchase price of the electricity. The amount of the rate reduction or nonrefundable credit is not included in your income."

** The term "public utility" is defined as an entity "engaged in the sale of electricity or natural gas to residential, commercial, or industrial customers for use by such customers." The term includes federal, state and local government entities.*

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Energy-Efficient Appliance Tax Credit for Manufacturers

Last DSIRE Review: 10/09/2008

Incentive Type:	Corporate Tax Credit
State:	Federal
Eligible Efficiency Technologies:	Clothes Washers, Dishwasher, Refrigerators/Freezers
Applicable Sectors:	Industrial, Appliance Manufacturers
Amount:	Dishwashers: $45 or $75 per unit, varies by energy and water efficiency; Clothes washers: $75 - $250 per unit,varies by type, and energy and water eficiency; Refrigerators: $50 - $200, depending on energy efficiency rating
Maximum Incentive:	The aggregate amount of credit allowed is $75 million per taxpayer. Certain refrigerators and clothes washers will not add to the aggregate credit amount. See summary below for more details.
Carryover Provisions:	Not specified
Equipment/Installation Requirements:	Appliances must meet Energy Star 2007 requirements; must be new and in compliance with all applicable performance and safety standards
Authority 1:	26 USC § 45M
Date Enacted:	8/8/2005
Date Effective:	1/1/2006

Expiration Date: 12/31/2007

Authority 2: H.R. 1424: Div. B, Sec. 305 (The Energy Improvement and Extension Act of 2008)

Date Enacted: 10/3/2008

Date Effective: 1/1/2007

Expiration Date: Varies by appliance and efficiency level

Summary:
The Energy Policy Act of 2005 established tax credits for manufacturers of high-efficiency residential clothes washers, refrigerators, and dishwashers produced in calendar years 2006 and 2007. The Energy Improvement and Extension Act of 2008 (H.R. 1424, Division B) extended the credits for additional years depending on the efficiency rating of the manufactured appliance. Manufacturers only receive these credits for the increase in production of qualifying appliances over a two-year rolling baseline, and only appliances produced in the United States are eligible.

Credits available to manufacturers are as follows:

Dishwashers

- $45 for models manufactured in calendar year 2008 or 2009 which use no more than 324 kilowatt hours (kWh) per year and 5.8 gallons per cycle.
- $75 for models manufactured in calendar year 2008, 2009, or 2010 which use no more than 307 kWh per year and 5.5 gallons per cycle .

Clothes washers

- $75 for residential top-loading models manufactured in 2008 which meet or exceed a 1.72 modified energy factor (MEF) and do not exceed a 8.0 water consumption factor (WCF).
- $125 for residential top-loading models manufactured in 2008 or 2009 which meet or exceed a 1.8 MEF and do not exceed a 7.5 WCF.
- $150 for a residential or commercial models manufactured in 2008, 2009, or 2010 which meet or exceed a 2.0 MEF and does not exceed a 6.0 WCF.
- $250 for residential or commercial models manufactured in 2008, 2009, or 2010 which meet or exceed a 2.2 MEF and do not exceed a 4.5 WCF.

Refrigerators

- $50 for models manufactured in 2008 which are between 20% and 22.9% more efficient than the 2001 energy conservation standards.
- $75 for models manufactured in 2008 or 2009 which are between 23% and 24.9% more efficient than the 2001 energy conservation standards.
- $100 for models manufactured in 2008, 2009, or 2010 which are between 25% and 29.9% more efficient than the 2001 energy conservation standards.
- $200 for models manufactured in 2008, 2009, or 2010 which are at least 30% more efficient than the 2001 energy conservation standards.

Each manufacturer is limited to a total of $75 million for all credits under this provision. However, refrigerators manufactured in 2008, 2009, or 2010 which consume at least 30% less energy than the 2001 energy conservation standards will not add to the aggregate credit amount and have no separate credit limit. Residential and commercial clothes washers manufactured in 2008, 2009 or 2010 which meet or exceed a 2.2 MEF and do not exceed a 4.5 WCF also will not add to the aggregate limit and have no separate credit limit.

The 2007 IRS Form 8909 is available here. For more information on qualifying products, visit the Energy Star web site.

Contact:
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U.S. Internal Revenue Service
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Web Site: http://www.irs.gov

Energy-Efficient New Homes Tax Credit for Home Builders

Last DSIRE Review: 10/09/2008

Incentive Type:	Corporate Tax Credit
State:	Federal
Eligible Efficiency Technologies:	Comprehensive Measures/Whole Building
Applicable Sectors:	Builder/Developer
Amount:	$1,000 - $2,000 (depends on energy savings and home type)
Maximum Incentive:	$2,000
Web Site:	http://www.irs.gov/businesses/small/industries/article/0,,id=155445,00.html
Authority 1:	26 USC § 45L
Date Enacted:	8/8/2005 (amended 2008)
Date Effective:	1/1/2006
Expiration Date:	12/31/2009
Authority 2:	H.R. 1424: Div. B, Sec. 304 (The Energy Improvement and Extension Act of 2008)
Date Enacted:	10/3/2008
Expiration Date:	12/31/2009

Summary:
The federal Energy Policy Act of 2005 established tax credits of up to $2,000 for builders of all new energy-efficient homes, including manufactured homes constructed in accordance with the Federal Manufactured Homes Construction and Safety Standards. Initially scheduled to expire at the end of 2007, the tax credit was extended through 2008 by Section 205 of the Tax Relief and Health Care Act of 2006 (H.R. 6111), and then extended again through December 31, 2009 by Section 304 of The Energy Improvement and Extension Act of 2008 (H.R. 1424).

The home qualifies for the credit if:

- It is located in the United States;
- Its construction is substantially completed after August 8, 2005;
- It meets the energy saving requirements outlined in the statute; and
- It is acquired from the eligible contractor after December 31, 2005, and before January 1, 2010, for use as a residence.

Energy Saving Requirements

Site-built homes qualify for a $2,000 credit if they are certified to reduce heating and cooling energy consumption by 50% relative to the International Energy Conservation Code standard and meet minimum efficiency standards established by the Department of Energy. Building envelope component improvements must account for at least one-fifth of the reduction in energy consumption.

Manufactured homes qualify for a $2,000 credit if they conform to Federal Manufactured Home Construction and Safety Standards and meet the energy savings requirements of site-built homes described above.

Manufactured homes qualify for a $1,000 credit if they conform to Federal Manufactured Home Construction and Safety Standards and reduce energy consumption by 30% relative to the International Energy Conservation Code standard. In this case, building envelope component improvements must account for at least one-third of the reduction in energy consumption. Alternatively, manufactured homes qualify if they meet Energy Star Labeled Homes requirements.

Certification
The Internal Revenue Service (IRS) has issued guidance to provide information about the certification process that a builder must complete to qualify for the credit. The guidance also provides for a public list of software programs that may be used in calculating energy consumption for purposes of obtaining a certification.

IRS Notice 2006-27 provides guidance for the credit for building energy-efficient homes other than manufactured homes. IRS Notice 2006-28 provides guidance for the credit for building energy-efficient manufactured homes. Click here to access IRS Form 8908: Energy Efficient Home Credit.

For more information on this and other energy efficiency tax credits, visit the Energy Star web site.

Contact:

Public Information - IRS
U.S. Internal Revenue Service
1111 Constitution Avenue, N.W.
Washington, DC 20224
Phone: (800) 829-1040
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Tribal Energy Program Grant

Last DSIRE Review: 08/19/2009

Incentive Type:	Federal Grant Program
State:	Federal
Eligible Efficiency Technologies:	Clothes Washers, Refrigerators/Freezers, Water Heaters, Lighting, Lighting Controls/Sensors, Chillers, Furnaces, Boilers, Air conditioners, Programmable Thermostats, Energy Mgmt. Systems/Building Controls, Caulking/Weather-stripping, Duct/Air sealing, Building Insulation, Windows, Doors, Siding, Roofs, Comprehensive Measures/Whole Building, other energy efficiency improvements may be eligible
Eligible Renewable/Other Technologies:	Passive Solar Space Heat, Solar Water Heat, Solar Space Heat, Photovoltaics, Wind, Biomass, Hydroelectric, Geothermal Electric, Geothermal Heat Pumps
Applicable Sectors:	Tribal Government
Amount:	Varies by solicitation
Max. Limit:	Varies by solicitation
Web Site:	http://www.eere.energy.gov/tribalenergy

Summary:
The U.S. Department of Energy's (DOE) Tribal Energy Program promotes tribal energy sufficiency, economic growth and employment on tribal lands through the development of renewable energy and energy efficiency technologies. The program provides financial assistance, technical assistance, education and training to tribes for the evaluation and development of renewable energy resources and energy efficiency measures.

DOE's Tribal Energy Program consists of program management through DOE headquarters, program implementation and project management through DOE's field offices, and technical support through DOE laboratories. Program management for the Tribal Energy Program is carried out by DOE's Weatherization and Intergovernmental Program, which provides programmatic direction and funding to DOE field offices for program implementation. DOE's field offices, specifically the Golden Field Office, issue solicitations and manage resulting projects.

Program funding is awarded through a competitive process. Click here to view current program funding opportunities.

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USDA - Rural Energy for America Program (REAP) Grants

Last DSIRE Review: 05/27/2009

Incentive Type:	Federal Grant Program
State:	Federal
Eligible Efficiency Technologies:	Yes; specific technologies not identified
Eligible Renewable/Other Technologies:	Solar Water Heat, Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydroelectric, Renewable Transportation Fuels, Geothermal Electric, Geothermal Heat Pumps, CHP/Cogeneration, Hydrogen, Direct-Use Geothermal, Anaerobic Digestion, Small Hydroelectric, Tidal Energy, Wave Energy, Ocean Thermal, Renewable Fuels, Fuel Cells using Renewable Fuels, Microturbines
Applicable Sectors:	Commercial, Schools, Local Government, State Government, Tribal Government, Rural Electric Cooperative, Agricultural, Public Power Entities
Amount:	Varies
Max. Limit:	25% of project cost
Web Site:	http://www.rurdev.usda.gov/rbs/busp/bprogs.htm
Authority 1:	7 USC § 8106
Date Enacted:	5/13/2002
Date Effective:	FY 2003

Summary:
NOTE: The U.S. Department of Agriculture's Rural Development has issued a Notice of Solicitation of Applications for the Rural Energy for America Program (REAP). The deadline to apply for grants and loan guarantees under this solicitation is July 31, 2009. Grants and loan guarantees will be awarded for investments in renewable energy systems, energy efficiency improvements and renewable energy feasibility studies.

The Food, Conservation, and Energy Act of 2008 (H.R. 2419), enacted by Congress in May 2008, converted the federal

Renewable Energy Systems and Energy Efficiency Improvements Program,* into the Rural Energy for America Program (REAP). Similar to its predecessor, the REAP promotes energy efficiency and renewable energy for agricultural producers and rural small businesses through the use of (1) grants and loan guarantees for energy efficiency improvements and renewable energy systems, and (2) grants for energy audits and renewable energy development assistance. Congress has allocated funding for the new program in the following amounts: $55 million for FY 2009, $60 million for FY 2010, $70 million for FY 2011, and $70 million for FY 2012. REAP is administered by the U.S. Department of Agriculture (USDA).

Of the total REAP funding available, 96% is dedicated to grants and loan guarantees for energy efficiency improvements and renewable energy systems. These incentives are available to agricultural producers and rural small businesses to purchase renewable energy systems (including systems that may be used to produce and sell electricity), to make energy efficiency improvements, and to conduct relevant feasibility studies. Eligible renewable energy projects include wind, solar, biomass and geothermal; and hydrogen derived from biomass or water using wind, solar or geothermal energy sources. These grants are limited to 25% of a proposed project's cost, and a loan guarantee may not exceed $25 million. The combined amount of a grant and loan guarantee may not exceed 75% of the project's cost. In general, a minimum of 20% of the funds available for these incentives will be dedicated to grants of $20,000 or less. The USDA likely will announce the availability of funding for this component of REAP through a Notice of Funds Availability (NOFA).

The USDA will also make competitive grants to eligible entities to provide assistance to agricultural producers and rural small businesses "to become more energy efficient" and "to use renewable energy technologies and resources." These grants are generally available to state government entities, local governments, tribal governments, land-grant colleges and universities, rural electric cooperatives and public power entities, and other entities, as determined by the USDA. These grants may be used for conducting and promoting energy audits; and for providing recommendations and information related to energy efficiency and renewable energy. Of the total REAP funding available, 4% is dedicated to competitive grants to provide assistance to agricultural producers and rural small businesses.

** The Renewable Energy Systems and Energy Efficiency Improvements Program was created by the USDA pursuant to Section 9006 of the 2002 federal Farm Security and Rural Investment Act of 2002. Funding in the amount of $23 million per year was appropriated for each fiscal year from FY 2003-2007. In March 2008, the USDA announced that it would accept $220.9 million in applications for grants, loan guarantees, and loan/grant combination packages under the Renewable Energy Systems and Energy Efficiency Improvements Program. The application deadline was June 16, 2008.*

Energy-Efficient Mortgages

Last DSIRE Review: 08/03/2009

Incentive Type:	Federal Loan Program
State:	Federal
Eligible Efficiency Technologies:	Yes; specific technologies not identified
Eligible Renewable/Other Technologies:	Passive Solar Space Heat, Solar Water Heat, Solar Space Heat, Photovoltaics, Daylighting
Applicable Sectors:	Residential
Web Site:	http://www.resnet.us/ratings/mortgages

Summary:
Homeowners can take advantage of energy efficient mortgages (EEM) to finance a variety of energy efficiency measures, including renewable energy technologies, in a new or existing home. The U.S. federal government supports these loans by insuring them through Federal Housing Authority (FHA) or Veterans Affairs (VA) programs. This allows borrowers who might otherwise be denied loans to pursue energy efficiency improvements, and it secures lenders against loan default.

The federal Energy Star program has a partnership program for lenders whereby lenders who provide EEMs to borrowers may become Energy Star lender partners. These EEMs may or may not be used to purchase an Energy Star qualified home. Becoming a partner allows lenders to utilize the Energy Star brand to promote themselves as Energy Star partners offering EEMs.

To become a lender partner lenders must first provide proof that they know how to write EEMs. To maintain their partnership benefits, lenders must write a certain number of EEMs per year. Energy Star does not have a lender certification program or process. Click here for more information about Energy Star's lender partnership program. As of August 2008, the federal Energy Star program lists 61 private lenders who offer homebuyer assistance, HERS assistance, special financing, and other assistance to applicants buying homes with the Energy Star rating. Energy Star requires that its lender partners provide EEMs to qualified borrowers regardless of whether it is an FHA EEM, Fannie Mae EEM, or VA EEM.

FHA Energy Efficient Mortgages

The FHA allows lenders to add up to 100% of energy efficiency improvements to an existing mortgage loan with certain restrictions. FHA mortgage limits vary by county, state and the number of units in a dwelling. See www.fha.com/lending_limits.cfm for more details. These mortgages were previously limited to $8,000. In June 2009, HUD issued Mortgagee Letter 2009-18 which announced the removal of the dollar cap. The maximum amount of the portion of an energy efficient mortgage allowed for energy improvements is now the lesser of 5% of:

- The value of the property,
- 115% of the median area price of a single-family dwelling, or
- 150% of the Freddie Mac conforming loan limit

Loan amounts may not exceed the projected savings of the energy efficiency improvements. These loans may be combined with FHA 203 (h) mortgages available to victims of presidentially-declared disasters and with financing offered through the FHA 203 (k) rehabilitation program. FHA loan limits do not apply to the EEM. Homebuyers must submit a Home Energy Rating (HER), contractor bids, and a FHA B Worksheet. This process may become streamlined in 2009 as a result of the Housing and Economic Recovery Act of 2008, which requires HUD to report to congress with ways to remove the administrative barriers and increase consumer participation and awareness of these financing options.

Presently, up to $200 of the cost of the HER may be included in the mortgage, and borrowers may include closing costs and the up-front mortgage insurance premium in the total cost of the loan. The loan is available to anyone who meets the income requirements for FHA's Section 203 (b), provided the applicant can meet the monthly mortgage payments. New and existing owner-occupied homes of up to two units qualify for this loan. Cooperative units are not eligible. Homebuyers should submit applications to their local HUD Field Office through an FHA-approved lending institution, or they can apply directly online at www.fha.com/energy_efficient.cfm. See also www.hud.gov/offices/hsg/sfh/eem/energy-r.cfm.

Department of Veterans Affairs (VA) Energy Efficient Mortgages

The VA insures EEMs to be used in conjunction with VA loans either for the purchase of existing homes or for refinancing loans secured by the dwelling. Homebuyers may borrow up to $3,000 if only documentation of improvement costs or contractor bids is submitted, or up to $6,000 if the projected energy savings are greater than the increase in mortgage payments. Loans may exceed this amount at the discretion of the VA. Applicants may not include the cost of their own labor in the total amount. No additional home appraisal is needed, but applicants must submit a HER, contractor bids and certain other documentation. The VA insures 50% of the loan if taken by itself, but it may insure less if the total value of the mortgage exceeds a certain amount.

This mortgage is available to qualified military personnel, reservists and veterans. (See www.homeloans.va.gov/elig2.htm for more details). Applicants should secure a certificate of eligibility from their local lending office and submit it to a VA-approved private lender. If the loan is approved, the VA guarantees the loan when it is closed.

Conventional EEMs

Conventional mortgages are not backed by a federal agency. Private lenders sell loans to Fannie Mae and Freddie Mac, which in turn allow homebuyers to borrow up to 15% of an existing home's appraised value for improvements documented by a HER.

Fannie Mae also lends up to 5% for Energy Star new homes. Fannie Mae EEMs are available to single-family, owner-occupied units, and Fannie Mae provides EEMs to those whose income might otherwise disqualify them from receiving the loans by allowing approved lenders to adjust borrowers' debt-to-income ratio by 2%. The value of the improvements is immediately added to the total appraised value of the home.

Freddie Mac offers EEMs for one- to four-unit dwellings and also helps raise the effective income of the borrower to qualifying levels by allowing lenders to increase the borrower's income by a dollar amount equal to the estimated energy savings. Any energy efficiency improvements can qualify, and these mortgages can be combined with both fixed-rate and adjustable-rate mortgages. Borrowers should apply directly to the lender. See www.natresnet.org/resources/lender/default.htm for more details.

Qualified Energy Conservation Bonds (QECBs)

Last DSIRE Review: 04/14/2009

Incentive Type:	Federal Loan Program
State:	Federal
Eligible Efficiency Technologies:	Yes; specific technologies not identified
Eligible Renewable/Other Technologies:	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Municipal Solid Waste, Hydrokinetic Power, Anaerobic Digestion, Tidal Energy, Wave Energy, Ocean Thermal
Applicable Sectors:	Local Government, State Government, Tribal Government
Amount:	Varies
Authority 1:	26 USC § 54A
Date Enacted:	10/03/2008
Date Effective:	10/03/2008
Authority 2:	26 USC § 54D
Date Enacted:	10/03/2008 (subsequently amended)
Date Effective:	10/03/2008
Authority 3:	IRS Notice 2009-29
Date Effective:	04/07/2009

Summary:
The *Energy Improvement and Extension Act of 2008*, enacted in October 2008, authorized the issuance of Qualified Energy Conservation Bonds (QECBs) that may be used by state, local and tribal governments to finance certain types of energy projects. QECBs are qualified tax credit bonds, and in this respect are similar to new Clean Renewable Energy Bonds or CREBs.

The October 2008 enabling legislation set a limit of $800 million on the volume of energy conservation tax credit bonds that may be issued by state and local governments. However, *The American Recovery and Reinvestment Act of 2009*, enacted in February 2009, expanded the allowable bond volume to $3.2 billion. In April 2009 the IRS issued Notice 2009-29 providing interim guidance on how the program will operate and how the bond volume will be allocated.

The advantage of these bonds is that they are issued -- theoretically -- with a 0% interest rate. The borrower pays back only the principal of the bond, and the bondholder receives federal tax credits in lieu of the traditional bond interest. The tax credit may be taken quarterly to offset the tax liability of the bondholder. The tax credit rate is set daily by the U.S. Treasury Department; however, energy conservation bondholders will receive only 70% of the full rate set by the Treasury Department under 26 26 USC § 54A. Credits exceeding a bondholder's tax liability may be carried forward to the succeeding tax year, but cannot be refunded. Energy conservation bonds differ from traditional tax-exempt bonds in that the tax credits issued through the program are treated as taxable income for the bondholder. QECB rates are available here.

In contrast to CREBs, QECBs are not subject to a U.S. Department of Treasury application and approval process. Bond volume is instead allocated to each state based on the state's percentage of the U.S. population as of July 1, 2008. Each state is then required to allocate a portion of its allocation to "large local governments" within the state based on the local government's percentage of the state's population. Large local governments are defined as municipalities and counties with populations of 100,000 or more. Large local governments may reallocate their designated portion back to the state if they choose to do so. IRS Notice 2009-29 contains a list of the QECB allocations for each state and U.S. territory.

The definition of "qualified energy conservation projects" is fairly broad and contains elements relating to energy efficiency capital expenditures in public buildings; renewable energy production; various research and development applications; mass commuting facilities that reduce energy consumption; several types of energy related demonstration projects; and public energy efficiency education campaigns (see H.R. 1424 for additional details). Renewable energy facilities that are eligible for CREBs are also eligible for QECBs.

For more information on QECBs, contact Timothy Jones or David White of the IRS Office of Associate Chief Counsel at (202)

622-3980.

Contact:

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U.S. Department of Energy - Loan Guarantee Program

Last DSIRE Review: 07/30/2009

Incentive Type:	Federal Loan Program
State:	Federal
Eligible Efficiency Technologies:	Yes; specific technologies not identified
Eligible Renewable/Other Technologies:	Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Wind, Hydroelectric, Renewable Transportation Fuels, Geothermal Electric, Fuel Cells, Manufacturing Facilities, Daylighting, Tidal Energy, Wave Energy, Ocean Thermal, Biodiesel
Applicable Sectors:	Commercial, Industrial, Nonprofit, Schools, Local Government, State Government, Agricultural, Institutional, Any non-federal entity
Amount:	Varies. Program focuses on projects with total project costs over $25 million.
Max. Limit:	None stated
Terms:	Full repayment is required over a period not to exceed the lesser of 30 years or 90% of the projected useful life of the physical asset to be financed
Web Site:	http://www.lgprogram.energy.gov
Authority 1:	42 USC § 16511 et seq.
Authority 2:	10 CFR 609

Summary:

Innovative Technology Loan Guarantee Program:

Title XVII of the federal *Energy Policy Act of 2005* (EPAct 2005) authorized the U.S. Department of Energy (DOE) to issue loan guarantees for projects that "avoid, reduce or sequester air pollutants or anthropogenic emissions of greenhouse gases; and employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued." The loan guarantee program has been authorized to offer more than $10 billion in loan guarantees for energy efficiency, renewable energy and advanced transmission and distribution projects.

DOE actively promotes projects in three categories: (1) manufacturing projects, (2) stand-alone projects, and (3) large-scale integration projects that may combine multiple eligible renewable energy, energy efficiency and transmission technologies in accordance with a staged development scheme. Under the original authorization, loan guarantees were intended to encourage early commercial use of new or significantly improved technologies in energy projects. The loan guarantee program generally does not support research and development projects.

In July 2009, the U.S. DOE issued a new solicitation for projects that employ innovative energy efficiency, renewable energy, and advanced transmission and distribution technologies. Proposed projects must fit within the criteria for "New or Significantly Improved Technologies" as defined in 10 CFR 609. The solicitation provides for a total of $8.5 billion in funding and is to remain

open until that amount is fully obligated. The initial due date for applicants was September 16, 2009.

Temporary Loan Guarantee Program:
The American Recovery and Reinvestment Act of 2009 (H.R. 1), enacted in February 2009, extended the authority of the DOE to issue loan guarantees and appropriated $6 billion for this program. Under this act, the DOE may enter into guarantees until September 30, 2011. The act amended EPAct 2005 by adding a new section defining eligible technologies for new loan guarantees. Eligible projects include renewable energy projects that generate electricity or thermal energy and facilities that manufacture related components, electric power transmission systems, and innovative biofuels projects. Funding for biofuels projects is limited to $500 million. Davis-Bacon wage requirements apply to any project receiving a loan guarantee.

In July 2009, the U.S. DOE issued a solicitation for transmission infrastructure investment projects. The solicitation is intended to provide loan guarantees for transmission infrastructure investment projects that are expected to commence construction no later than September 30, 2011.

Contact:

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E-Mail: LGProgram@hq.doe.gov
Web Site: http://www.lgprogram.energy.gov

USDA - Rural Energy for America Program (REAP) Loan Guarantees

Last DSIRE Review: 05/27/2009

Incentive Type:	Federal Loan Program
State:	Federal
Eligible Efficiency Technologies:	Yes; specific technologies not identified
Eligible Renewable/Other Technologies:	Solar Water Heat, Solar Space Heat, Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydroelectric, Renewable Transportation Fuels, Geothermal Electric, Geothermal Heat Pumps, CHP/Cogeneration, Hydrogen, Direct-Use Geothermal, Anaerobic Digestion, Small Hydroelectric, Tidal Energy, Wave Energy, Ocean Thermal, Renewable Fuels, Fuel Cells using Renewable Fuels, Microturbines
Applicable Sectors:	Commercial, Agricultural
Amount:	Varies
Max. Limit:	$25 million per loan guarantee
Web Site:	http://www.rurdev.usda.gov/rbs/busp/bprogs.htm
Authority 1:	7 USC § 8106
Date Enacted:	5/13/2002
Date Effective:	FY 2003

Summary:
NOTE: The U.S. Department of Agriculture's Rural Development has issued a Notice of Solicitation of Applications for the Rural Energy for America Program (REAP). The deadline to apply for grants and loan guarantees under this solicitation is July 31, 2009. Grants and loan guarantees will be awarded for investments in renewable energy systems, energy efficiency improvements and renewable energy feasibility studies.

The Food, Conservation, and Energy Act of 2008 (H.R. 2419), enacted by Congress in May 2008, converted the federal Renewable Energy Systems and Energy Efficiency Improvements Program,* into the Rural Energy for America Program (REAP). Similar to its predecessor, the REAP promotes energy efficiency and renewable energy for agricultural producers and rural small businesses through the use of (1) grants and loan guarantees for energy efficiency improvements and renewable energy systems, and (2) grants for energy audits and renewable energy development assistance. Congress has allocated funding for the new program in the following amounts: $55 million for FY 2009, $60 million for FY 2010, $70 million for FY 2011, and $70 million for FY 2012. REAP is administered by the U.S. Department of Agriculture (USDA).

Of the total REAP funding available, 96% is dedicated to grants and loan guarantees for energy efficiency improvements and renewable energy systems. These incentives are available to agricultural producers and rural small businesses to purchase renewable energy systems (including systems that may be used to produce and sell electricity), to make energy efficiency improvements, and to conduct relevant feasibility studies. Eligible renewable energy projects include wind, solar, biomass and geothermal; and hydrogen derived from biomass or water using wind, solar or geothermal energy sources. These grants are limited to 25% of a proposed project's cost, and a loan guarantee may not exceed $25 million. The combined amount of a grant and loan guarantee may not exceed 75% of the project's cost. In general, a minimum of 20% of the funds available for these incentives will be dedicated to grants of $20,000 or less. The USDA likely will announce the availability of funding for this component of REAP through a Notice of Funds Availability (NOFA).

The USDA will also make competitive grants to eligible entities to provide assistance to agricultural producers and rural small businesses "to become more energy efficient" and "to use renewable energy technologies and resources." These grants are generally available to state government entities, local governments, tribal governments, land-grant colleges and universities, rural electric cooperatives and public power entities, and other entities, as determined by the USDA. These grants may be used for conducting and promoting energy audits; and for providing recommendations and information related to energy efficiency and renewable energy. Of the total REAP funding available, 4% is dedicated to competitive grants to provide assistance to agricultural producers and rural small businesses.

** The Renewable Energy Systems and Energy Efficiency Improvements Program was created by the USDA pursuant to Section 9006 of the 2002 federal Farm Security and Rural Investment Act of 2002. Funding in the amount of $23 million per year was appropriated for each fiscal year from FY 2003-2007. In March 2008, the USDA announced that it would accept $220.9 million in applications for grants, loan guarantees, and loan/grant combination packages under the Renewable Energy Systems and Energy Efficiency Improvements Program. The application deadline was June 16, 2008.*

Contact:

Public Information - RBS
U.S. Department of Agriculture
Rural Business - Cooperative Service
USDA/RBS, Room 5045-S, Mail Stop 3201
1400 Independence Avenue SW
Washington, DC 20250-3201
Phone: (202) 690-4730
Fax: (202) 690-4737
E-Mail: webmaster@rurdev.usda.gov
Web Site: http://www.rurdev.usda.gov/rbs

Qualifying Advanced Energy Manufacturing Investment Tax Credit

Last DSIRE Review: 08/13/2009

Incentive Type: Industry Recruitment/Support
State: Federal
Eligible Efficiency Technologies: Lighting, Lighting Controls/Sensors, Energy Conservation Technologies; Smart Grid
Eligible Solar Water Heat, Solar Thermal Electric, Photovoltaics, Wind, Geothermal

Renewable/Other Technologies:	Electric, Fuel Cells, Geothermal Heat Pumps, Batteries and Energy Storage; Advanced Transmission Technologies that Support Renewable Energy Generation; , Renewable Fuels, Fuel Cells using Renewable Fuels, Microturbines
Applicable Sectors:	Commercial, Industrial, Manufacturing
Amount:	30% of qualified investment
Max. Limit:	Total amount of credits to be allocated shall not exceed $2.3 billion
Terms:	Apply first to the Department of Energy (DOE); must receive recommendation and ranking from DOE in order to apply to the Internal Revenue Service for certification of credits
Web Site:	http://www.energy.gov/recovery/48C.htm
Authority 1:	26 USCS § 48C
Date Enacted:	02/17/2009
Date Effective:	02/17/2009

Summary:
The U.S. Treasury Department, in consultation with the U.S. Department of Energy (DOE), has posted guidelines and the application for these tax credits on the website listed above. The applications may be submitted starting August 14, 2009 and preliminary applications are due to the DOE by September 16, 2009 with final applications due to DOE October 16, 2009. The DOE will provide its project review and ranking. In order to apply to the Internal Revenue Service (IRS), the applicant must receive its recommendation and ranking from the DOE. The applications to the Internal Revenue Service (IRS) are due on December 16, 2009 and must include the DOE recommendation and project ranking. IRS will certify or reject applications by January 10, 2010 and notify the certified projects of the approved amount of their tax credit.

The American Recovery and Reinvestment Act of 2009 (H.R. 1), enacted in February 2009, established a new investment tax credit to encourage the development of a U.S.-based renewable energy manufacturing sector. In any taxable year, the investment tax credit is equal to 30% of the qualified investment required for an advanced energy project that establishes, re-equips or expands a manufacturing facility that produces any of the following:

- Equipment and/or technologies used to produced energy from the sun, wind, geothermal or "other" renewable resources
- Fuel cells, microturbines or energy-storage systems for use with electric or hybrid-electric motor vehicles
- Equipment used to refine or blend renewable fuels
- Equipment and/or technologies to produce energy-conservation technologies (including energy-conserving lighting technologies and smart grid technologies)*

Qualified investments generally include personal tangible property that is depreciable and required for the production process. Other tangible property may be considered a qualified investment only if it is an essential part of the facility, excluding buildings and structural components.

The U.S. Treasury Department will issue certifications for qualified investments eligible for credits to qualifying advanced energy project sponsors. In total, $2.3 billion worth of credits may be allocated under the program. After certification is granted, the taxpayer has one year to provide additional evidence that the requirements of the certification have been met and three years to put the project in service. There are provisions for credit recapture for non-compliance.

In determining which projects to certify, the U.S. Treasury Department must consider those which most likely will be commercially viable, provide the greatest domestic job creation, provide the greatest net reduction of air pollution and/or greenhouse gases, have great potential for technological innovation and commercial deployment, have the lowest levelized cost of generated (or stored) energy *or* the lowest levelized cost of reduction in energy consumption or greenhouse gas emissions, *and* have the shortest project time.

Any taxpayer receiving this credit may not also receive business energy investment tax credit.

See U.S. DOE Advanced Energy Manufacturing Tax Credit (48C) Website for the DOE application and guidance, the IRS application, as well as the email for submitting the application.

**Note: This credit may be expanded in the future to include other energy technologies that reduce greenhouse gas emissions, as determined by the U.S. Treasury Department.*

Contact:

Public Information - IRS
U.S. Internal Revenue Service
1111 Constitution Avenue, N.W.
Washington, DC 20224
Phone: (800) 829-1040
Web Site: http://www.irs.gov

Residential Energy Conservation Subsidy Exclusion (Personal)

Last DSIRE Review: 07/27/2009

Incentive Type:	Personal Exemption
State:	Federal
Eligible Efficiency Technologies:	Yes; specific technologies not identified
Eligible Renewable/Other Technologies:	Solar Water Heat, Solar Space Heat, Photovoltaics
Applicable Sectors:	Residential, Multi-Family Residential
Amount:	100% of subsidy
Terms:	Applies to energy conservation measures on dwelling units only
Web Site:	http://www.irs.gov/publications/p525/index.html
Authority 1:	26 USC § 136
Date Enacted:	1992

Summary:
According to Section 136 of the U.S. Code, energy conservation subsidies provided by public utilities,* either directly or indirectly, are nontaxable: "Gross income shall not include the value of any subsidy provided (directly or indirectly) by a public utility to a customer for the purchase or installation of any energy conservation measure." (This exclusion does *not* apply to electricity-generating systems registered as "qualifying facilities" under the Public Utility Regulatory Policy Act of 1978.)

The term "energy conservation measure" includes installations or modifications primarily designed to reduce consumption of electricity or natural gas, or improve the management of energy demand. Eligible dwelling units include houses, apartments, condominiums, mobile homes, boats and similar properties. If a building or structure contains both dwelling and other units, any subsidy must be properly allocated.

Given the definition of "energy conservation measure," there is strong evidence that utility rebates for residential solar-thermal projects and solar-electric systems may be nontaxable. However, the IRS has not ruled definitively on this issue. For taxpayers considering using this provision for renewable energy systems, consultation with a tax professional is advised.

Other types of utility subsidies that may come in the form of credits or reduced rates may also be nontaxable, according to IRS Publication 525:

"Utility rebates. If you are a customer of an electric utility company and you participate in the utility's energy conservation program, you may receive on your monthly electric bill either: a reduction in the purchase price of electricity furnished to you (rate reduction), or a nonrefundable credit against the purchase price of the electricity. The amount of the rate reduction or nonrefundable credit is not included in your income."

** The term "public utility" is defined as an entity "engaged in the sale of electricity or natural gas to residential, commercial, or industrial customers for use by such customers." The term includes federal, state and local government entities.*

Contact:

Public Information - IRS
U.S. Internal Revenue Service
1111 Constitution Avenue, N.W.
Washington, DC 20224
Phone: (800) 829-1040
Web Site: http://www.irs.gov

Residential Energy Efficiency Tax Credit

Last DSIRE Review: 02/18/2009

Incentive Type:	Personal Tax Credit
State:	Federal
Eligible Efficiency Technologies:	Water Heaters, Furnaces, Boilers, Heat pumps, Air conditioners, Building Insulation, Windows, Doors, Roofs, Circulating fans used in a qualifying furnace
Eligible Renewable/Other Technologies:	Biomass, Stoves that use qualified biomass fuel
Applicable Sectors:	Residential
Amount:	30%
Maximum Incentive:	Aggregate amount of credit for all technologies placed in service in 2009 and 2010 combined is limited to $1,500
Equipment/Installation Requirements:	Equipment must be new and in compliance with all applicable performance and safety standards as described in tax code
Authority 1:	26 USC § 25C
Date Enacted:	8/8/2005 (subsequently amended)
Date Effective:	1/1/2006
Expiration Date:	12/31/2010

Summary:
The federal tax credit for energy-efficient home improvements was established by the *Energy Policy Act of 2005.* After expiring December 31, 2007, the credit was extended and expanded by The Energy Improvement and Extension Act of 2008 (H.R. 1424: Div. B, Sec. 302) and The American Recovery and Reinvestment Act of 2009 (H.R. 1: Div. B, Sec. 1121). The credit now applies to eligible equipment purchased between January 1, 2009, and December 31, 2010. In addition to extending the credit, H.R. 1424 and H.R. 1 strengthened the efficiency requirements for most equipment, extended the credit to stoves that use biomass fuel and asphalt roofs with appropriate cooling granules; raised the cap for the credit; and redesigned the way the credit is calculated.

The credit applies to energy efficiency improvements in the building envelope of existing homes and for the purchase of high-efficiency heating, cooling and water-heating equipment. Efficiency improvements or equipment must serve a dwelling in the United States that is owned and used by the taxpayer as a primary residence. The maximum amount of homeowner credit for all improvements combined is $1,500 for equipment purchased during the two-year period of 2009 and 2010.

Building Envelope Improvements
Owners of existing homes receive a tax credit worth 30% of the cost of upgrading the efficiency of the building's envelope.

Installation (labor) costs are not included. The following improvements are eligible for the tax credit:

- Insulation materials and systems designed to reduce a home's heat loss or gain
- Exterior doors and windows (including skylights) and
- Pigmented metal roofs designed to reduce heat gain, and asphalt roofs with appropriate cooling granules.

Heating, Cooling and Water-Heating Equipment

Taxpayers who purchase qualified residential energy-efficient property are eligible for a tax credit worth 30% of the system cost, *including* labor costs. The credit may also be applied to labor costs for assembly and original installation of eligible property. The following types of equipment are eligible:

- Electric heat pump water heaters
- Electric heat pumps
- Central air conditioners
- Natural gas, propane or oil water heaters
- Natural gas, propane or oil furnace or hot water boilers
- Advanced main air circulating fans
- Biomass stoves that use "plant-derived fuel available on a renewable or recurring basis, including agricultural crops and trees, wood and wood waste and residues (including wood pellets), plants (including aquatic plants), grasses, residues, and fibers"

Performance and quality standards for tax credit eligibility vary by technology. (See 26 USC § 25C, H.R. 1424 of 2008 and H.R. 1 of 2009) for details. Additionally, the Energy Star web site offers detailed information on qualifying products.

Significantly, *The American Recovery and Reinvestment Act of 2009* repealed a previous limitation on the use of the credit for eligible projects also supported by "subsidized energy financing." For projects placed in service after December 31, 2008, this limitation no longer applies. Businesses that receive other incentives are advised to consult with a tax professional regarding how to calculate this federal tax credit.

Background

The *Energy Policy Act of 2005* established the tax credit for energy improvements to existing homes. The credit was originally limited to purchases made in 2006 and 2007, with an aggregate cap of $500 for all qualifying purchases made in these two years combined. There were also separate individual caps for the different equipment types. H.R. 1424 of 2008 reinstated the credit for 2009 purchases and made other minor adjustments. H.R. 1 further extended the credit to include purchases made in 2010 and replaced the $500 aggregate cap with a $1,500 aggregate cap for installations made in 2009 and 2010. Tax credits for installations made in 2006 and 2007 are still limited to $500. Any purchase made in 2008 is not eligible for this tax credit.

Geothermal heat pumps were originally eligible for this credit, with a $300 cap. However, geothermal heat pumps are now eligible for the residential renewable energy tax credit, with no cap.

Contact:

Public Information - IRS
U.S. Internal Revenue Service
1111 Constitution Avenue, N.W.
Washington, DC 20224
Phone: (800) 829-1040
Web Site: http://www.irs.gov

Rules, Regulations & Policies

Federal Appliance Standards

Last DSIRE Review: 05/13/2009

Incentive Type: Appliance/Equipment Efficiency Standards

State:	Federal
Eligible Efficiency Technologies:	Clothes Washers, Dishwasher, Refrigerators/Freezers, Dehumidifiers, Ceiling Fan, Water Heaters, Lighting, Furnaces, Boilers, Heat pumps, Air conditioners, Motors, Exit and traffic signs, unit heaters, transformers, others
Applicable Sectors:	Industrial, (Product Manufacturers)
Equipment Requirements	Specified in Code of Federal Regulations
Test Methods	Varies
Implementing Agency	U.S. Department of Energy
Web Site:	http://www.eere.energy.gov/buildings/appliance_standards
Authority 1:	EPACT 2005 § 135
Date Enacted:	8/8/2005
Authority 2:	10 CFR 430
Authority 3:	10 CFR 431

Summary:
Minimum standards of energy efficiency for many major appliances were established by the U.S. Congress in the federal Energy Policy and Conservation Act (EPCA) of 1975, and have been subsequently amended by succeeding energy legislation, including the federal Energy Policy Act of 2005. The U.S. Department of Energy (DOE) is required to set appliance efficiency standards at levels that achieve the maximum improvement in energy efficiency that is technologically feasible and economically justified. The DOE web site lists updates and final rulings for 19 residential product categories and 14 commercial product categories.

The Energy Independence and Security Act of 2007 (EISA), established new standards for a few equipment types not already subjected to a standard, and updated some existing standards. Perhaps the most significant new standard that EISA 2007 established is for general service lighting which will be deployed in two phases. First, by 2012-2014 (phasing in over several years), common light bulbs will be required to use about 20-30% less energy than present incandescent bulbs. Second, by 2020, light bulbs must consume 60% less energy than today's bulbs; this requirement will effectively phase out the incandescent light bulb.

The president issued a Memorandum for the Secretary of Energy in February of 2009 requesting the DOE to take all necessary steps to finalize outstanding efficiency standards as expeditiously as possible. Such standards include those with deadlines prior to and including August 8, 2009. The memorandum also calls on the DOE to prioritize the development of efficiency standards for the remaining product categories based on energy savings. Standards that will result in the greatest energy savings should be developed first, however, the DOE must ensure that it meets applicable deadlines for all standards.

Note: Several states have adopted their own appliance standards. Under the general rules of federal preemption, states which had set standards prior to federal enactment may enforce their state standards up until the federal standards become effective. States that have not set standards for a product category that is now enforced by the federal government are subject to the federal standard immediately.

Contact:

Public Information - DOE
U.S. Department of Energy
Office of Building Technology Assistance
1000 Independence Avenue, EE-42
Washington, DC 20585
Phone: (877) 337-3463
Web Site: http://www.eere.energy.gov/buildings

Energy Goals and Standards for Federal Buildings

Last DSIRE Review: 04/30/2009

Incentive Type:	Energy Standards for Public Buildings
State:	Federal
Eligible Efficiency Technologies:	Comprehensive Measures/Whole Building, Custom/Others pending approval
Eligible Renewable/Other Technologies:	Solar Water Heat
Applicable Sectors:	Fed. Government
Goal:	Total energy reduction goal of 30% by FY 2015, using FY 2003 as baseline
Requirement:	Energy efficiency specs required in procurement bids and evaluations. Requires premium efficient products for electric motors, air conditioning and refrigeration equipment procurements. New federal buildings designed 30% below ASHRAE standards or IECC, and obtain 30% of their hot water demand from solar water heating, if life-cycle cost-effective.
Authority 1:	Energy Policy Act 2005 §§ 102, 104, 109
Date Enacted:	8/8/2005
Authority 2:	Energy Independence and Security Act 2007 §§ 431, 523
Date Enacted:	12/19/2007
Date Effective:	12/19/2007

Summary:
The federal Energy Policy Act of 2005 (EPAct 2005) and the federal Energy Independence and Security Act of 2007 (EISA 2007) reaffirmed and expanded several previous goals and standards to reduce energy use in existing and new federal buildings. The 2007 energy bill extended the federal energy reduction goal to 30% by fiscal year 2015; directed federal agencies to purchase Energy Star and Federal Energy Management Program (FEMP)-designated products; and requires new federal buildings to be built 30% below ASHRAE* standards or the International Energy Conservation Code (IECC).

Section 431 of EISA 2007 increased the federal energy reduction goal from 2% per year (as established by EPAct 2005) to 3% per year, resulting in 30% greater efficiency by 2015. The reporting baseline for energy savings is 2003, so that energy consumption per gross square foot (of federal buildings) is reduced, compared to energy consumption in 2003. The specified percentage reductions for each fiscal year are:

- FY 2006 .....2%
- FY 2007 .....4%
- FY 2008 .....9%
- FY 2009 .....12%
- FY 2010 .....15%
- FY 2011 .....18%
- FY 2012 .....21%
- FY 2013 .....24%
- FY 2014 .....27%
- FY 2015 .....30%

Under EPAct 2005, federal agencies are permitted to retain savings achieved through energy and water reductions. The U.S. Department of Energy (DOE) is charged with recommending new requirements for federal energy performance for FY 2016 - FY 2025 by December 13, 2014.

Section 104 of EPAct 2005 directed federal agencies to purchase Energy Star and FEMP-designated products when procuring energy-consuming items covered by the Energy Star program, except when purchasing such items is not cost-effective or does not meet functional requirements of the agency. Agencies must also incorporate energy-efficient specifications in procurement bids and evaluations, and must only purchase premium efficient electric motors, air conditioning and refrigeration equipment.

EPAct 2005 also instructed the General Services Administration (GSA) and the U.S. Department of Defense to clearly identify and display Energy Star and FEMP-designated products in any inventory, catalog or product listing.

Section 109 of EPAct 2005 required new federal buildings to be designed 30% below ASHRAE standards or IECC, to the extent that technologies employed are life-cycle cost-effective. In addition, sustainable design principles must be applied to new and replacement buildings. All agencies must identify new building projects in their budget requests and identify those that meet or exceed the standard.

Section 523 of the EISA 2007 requires that at least 30% of the hot water demand for each new federal building or existing federal buildings undergoing a major renovation be met through the use of solar hot water heating, if it is determined to be life-cycle cost-effective.

In December 2007, DOE adopted a final rule to implement certain efficiency provisions of EPAct 2005. This final rule applies to efficiency standards for federally-funded commercial and multi-family high-rise residential buildings and low-rise residential buildings.

** ASHRAE is the acronym for the American Society of Heating, Refrigerating and Air-Conditioning Engineers.*

Contact:

Public Information - FEMP
U.S. Department of Energy
Federal Energy Management Program
EE-2L
1000 Independence Ave., SW
Washington, DC 20585-0121
Phone: (202) 586-5772
Fax: (202) 586-3000
Web Site: http://www1.eere.energy.gov/femp

Energy Reduction Goals for Federal Agencies

Last DSIRE Review: 04/30/2009

Incentive Type:	Energy Standards for Public Buildings
State:	Federal
Eligible Efficiency Technologies:	Comprehensive Measures/Whole Building
Eligible Renewable/Other Technologies:	Renewable Fuel Vehicles, Other Alternative Fuel Vehicles
Applicable Sectors:	Fed. Government
Goal:	Total energy reduction goal for every federal agency is 30% by 2015, relative to the baseline of the agency's energy use in FY03
Requirement:	At least half of the required renewable energy consumed by the agency in a fiscal year must come from new renewable sources. New construction and major renovation of agency buildings must comply with the "Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings" set forth in the *Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding (2006)*. Electronic equipment purchased by agencies must be Electronic Product Environmental Assessment Tool (EPEAT)-registered products, unless there is no EPEAT standard for such product.
Web Site:	http://www1.eere.energy.gov/

femp/news/news_detail.html?news_id=10538

Authority 1: Executive Order 13423

Date Enacted: 1/24/2007

Date Effective: 1/24/2007

Summary:

Executive Order 13423: Strengthening Federal Environmental, Energy, and Transportation Management was signed by President George W. Bush on January 24, 2007. It establishes total energy reduction goals for every federal agency. These goals apply to the electricity consumed by federal buildings as well as the fuel consumed by federal fleets, provided a fleet consists of at least 20 vehicles. The executive order also establishes water-reduction goals, mandates recycling programs within facilities, and requires agencies to purchase electronic equipment registered with the Electronic Product Environmental Assessment Tool (EPEAT).

Executive Order 13423 established a schedule by which all federal agencies should reduce their total energy intensity by 30% by the end of 2015, relative to the baseline of the agency's energy use in fiscal year 2003. The table below shows the annual energy reductions required to meet this goal:

- FY 2006: 3%
- FY 2007: 6%
- FY 2008: 9%
- FY 2009: 12%
- FY 2010: 15%
- FY 2011: 18%
- FY 2012: 21%
- FY 2013: 24%
- FY 2014: 27%
- FY 2015: 30%

To help achieve these energy reductions, new construction and major renovation of agency buildings must comply with the "Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings" set forth in the *Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding (2006)*, in addition to the energy goals and standards established by the federal Energy Policy Act of 2005. These building standards include a target energy use of 30% below the average building performance for new buildings, and a target that is 20% below the average for renovations. The building standards also take into consideration indoor environmental quality, and a reduction in the environmental impact of the materials within the building in favor of bio-based and post-consumer products.

The executive order also calls for agencies to begin in fiscal year 2008 to reduce water consumption intensity when cost-effective, relative to the baseline of the agency's water consumption in fiscal year 2007. The target reduction is 2% annually through the end of fiscal year 2015 (or 16% by the end of fiscal year 2015). To help agencies conserve water, DOE's Federal Energy Management Program (FEMP) has developed a guidance document entitled Establishing Baseline and Meeting Water Conservation Goals of Executive Order 13423.

Agencies that operate fleets of at least 20 vehicles are also required to reduce their fleet's total consumption of petroleum products by 2% annually through 2015, while *increasing* their consumption of non-petroleum-based fuel by 10% per year. Agencies are also required to purchase plug-in hybrid vehicles when life-cycle cost analysis demonstrates their cost to be reasonably similar to other vehicles.

The Energy Policy Act of 2005 established green power purchasing goals for the federal government, whereby the 7.5% of electricity used by federal agencies must be obtained from renewable sources by 2013. Executive Order 13423 now requires at least half of the required renewable energy consumed by an agency in a fiscal year to come from sources placed in service in 1999 or later.

Contact:

Public Information - FEMP

U.S. Department of Energy

Federal Energy Management Program
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Phone: (202) 586-5772
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Web Site: http://www1.eere.energy.gov/femp