

Energy Efficiency in the Energy Bill

August 2005

RESIDENTIAL AND COMMERCIAL BUILDINGS *(also see tax incentives at end)*

Item	H.R. 6 Conference Report (2005)	Alliance to Save Energy— Vision 2010
Appliance and Equipment Standards		
New standards	<p><i>Sec. 135, 136:</i> Legislates standards for ceiling fans, torchiere lamps, compact fluorescent lamps, dehumidifiers, and unit heaters, and for commercial refrigerators and freezers, packaged air conditioners, coin-op clothes washers, dry-type transformers, exit signs, traffic signals, pedestrian signals, ice makers, mercury vapor light ballasts, 34W fluorescent light ballasts, and pre-rinse spray valves.</p> <p>Directs rulemakings for: battery chargers and external power supplies, and vending machines.</p> <p>Sets associated test procedures.</p>	Also includes a standard for digital TV adapters.
DOE rulemakings under existing laws	<p>Clarifies DOE's authority to set standards for both functions of products with two major functions, as well as to regulate furnace fans.</p> <p><i>Sec. 141:</i> Requires DOE to report to Congress every 6 months on plans to prescribe all standards for which they have missed legal deadlines.</p>	<p>Also clarifies DOE's authority to set two different standards, based on climate regions, for heating and cooling equipment.</p> <p>Authorizes \$150 million over 5 years (2006-2010) for the DOE program and requires a report to Congress on reasons for delays and timetables for uncompleted rulemakings.</p>
Preemption of state standards	Preempts new state and local standards at date of enactment of new legislated standards and date of final rule for rulemakings. Also, on some new standards, federal preemption of state standards would be suspended if DOE fails to issue a required standard update.	
Energy Star and Product Labels		
Funding + expansion	<i>Sec. 131:</i> Authorizes voluntary Energy Star Program at EPA and DOE.	Triples overall funding for the Energy Star program over a five-year period so it can expand to cover more products and services.
Updates	Requires regular updates to Energy Star eligibility requirements.	Requires updates to Energy Star eligibility requirements so only the most efficient buildings and products are selected.

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Transparency	Directs EPA and DOE to get comments before establishing or revising product categories or specifications, and to provide appropriate lead time (generally 9 months) before implementing any changes.	
Energy Guide labels	<i>Sec. 137:</i> Directs the Federal Trade Commission to conduct a rulemaking to improve Energy Guide labels for consumer products.	
Tax incentives or rebates	<i>Sec. 124:</i> Authorizes DOE to supplement eligible state programs to replace old appliances with Energy Star appliances. Authorizes appropriations of \$50 million per year from FY2006 through FY2010. <i>See also appliance tax incentives below.</i>	
Building Codes		
Compliance	<i>Sec. 128:</i> Authorizes \$25 million per year to support state building energy codes, including a new program to assist states that have up-to-date codes in achieving high rates of compliance.	
Manufactured housing	No provision	Updates the HUD manufactured housing standards to current IECC model energy code (2004 supplement).
Subsidized housing	<i>Sec. 153:</i> Sets the 2003 IECC model energy code as a standard only for public housing funded by HOPE VI grants.	Updates the standard for public housing and housing with federally insured mortgages to the 2004 IECC model energy code.
Federal Energy Management		
Energy Savings Performance Contracts (ESPCs)	<i>Sec. 105:</i> Reauthorizes Energy Savings Performance Contracts (ESPCs), which allow private financing of energy improvements to federal buildings, through September 2016. (Does not include pilot program for vehicles.)	Permanently reauthorizes ESPCs, and authorizes a pilot program to expand the program to up to 10 non-building ESPCs, not to exceed \$200 million.
Funding	No provision	Nearly triples funding for the Federal Energy Management Program over five year period.
Energy targets	<i>Sec. 102:</i> Sets 2% per year annual reduction goals in FY 2006 through FY 2015, using 2004 as the baseline. Also applies to water conservation. Allows agencies to keep energy expenditure funds retained due to energy savings.	
Building standards	<i>Sec. 103, 109:</i> Directs DOE to set standards for new federal buildings to at least 30% below ASHRAE or IECC standards if cost-effective; updates minimum standard to 2004 IECC and 2004 ASHRAE.	Also requires privatized military housing to earn the Energy Star designation and use Energy Star products.
Procurement	<i>Sec. 104:</i> Requires procurement of Energy Star or FEMP designated products unless they are determined not to be cost-effective on a life-cycle basis or not to be reasonably available.	

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Consumer Education	<p><i>Sec. 132:</i> Directs DOE to educate homeowners and small businesses on the benefits of HVAC maintenance, and directs the SBA to assist small businesses in becoming energy efficient.</p> <p><i>Sec. 133:</i> Authorizes public energy education program.</p> <p><i>Sec. 134:</i> Authorizes \$90 million per year (FY 2007 through 2010) for education focused on consumer actions to reduce natural gas, oil and electricity.</p>	No provision
Daylight Saving Time	<i>Sec. 110:</i> Extends Daylight Saving Time through late March and early November.	No provision

TRANSPORTATION *(also see tax incentives at end)*

Item	H.R. 6 Conference Report (2005)	Alliance to Save Energy—Vision 2010
Fuel Economy Standards		
Increase CAFE standards	No provision	No provision
Close CAFE loopholes	<p><i>Sec. 772:</i> Extends CAFE credit for dual-fuel vehicles to 2010, with possible further extension to 2014.</p> <p><i>Sec. 774:</i> Requires EPA to update test adjustment factors applied to reported fuel economies, but would not affect CAFE standards.</p> <p><i>Sec. 759:</i> Requires vehicles that receive the dual-fuel CAFE credit to be labeled as dual-fuel vehicles.</p>	<p>- <i>Revises EPA fuel economy tests</i> to reflect on-road fuel economy and bases CAFE standards on revised tests.</p> <p>- <i>Redefines passenger cars</i> to include SUVs and minivans, and raises weight limit to 14,000 pounds.</p> <p>- <i>Revises the CAFE credit for “dual-fuel” vehicles</i> to require actual use of the alternative fuel.</p> <p>- <i>Requires fuel economy testing and labels for all vehicles up to 14,000 pounds.</i></p>
Other CAFE reforms	<i>Sec. 773:</i> Requires study by DOT on the feasibility and effects of reducing the use of fuel for automobiles.	No provision
Fleet Requirements	<p><i>Sec. 703:</i> Allows alternative fuel provider and state fleets to opt out of the EPAct alternative fuel vehicle fleet requirements if they can achieve comparable reductions in oil use by some other means.</p> <p><i>Sec. 701:</i> Requires federal dual fuel vehicles to operate on the alternative fuel.</p>	Also allows federal fleets to opt out, and directs DOE to allow alternative fuel provider, state, and federal fleets to use hybrid and other vehicles, including trucks, to comply with EPAct alternative fuel vehicle fleet requirements.
Federal Fuel Consumption	No provision	Each agency ensure by 9/30/07 that average fleet fuel economy of vehicles after 2004 is at least 3 mpg higher than FY 2004 baseline.
Replacement Tires Standard	No provision	No provision
Oil Savings	No provision	No provision
Hybrid and Diesel Vehicle Grants	<p><i>Sec. 706:</i> Authorizes total of \$40 million for grants for the commercialization of hybrid/flexible fuel vehicles. <i>See also vehicle tax incentives below.</i></p> <p><i>Sec. 711:</i> Authorizes grants for the production and sale of hybrid and advanced diesel vehicles.</p> <p><i>Sec. 721-724:</i> Authorizes total of \$200 million for Clean Cities grants for the acquisition of hybrid, diesel, alternative fuel, and fuel cell vehicles. <i>See also vehicle tax incentives below</i></p>	No provision. <i>But see vehicle tax incentives below.</i>
Engine Idling Reduction	<i>Sec. 756:</i> Adds \$45 million authorization on idle reduction in trains to House provision.	No provision

INDUSTRY (also see tax incentives at end)

Item	H.R. 6 Conference Report (2005)	Alliance to Save Energy—Vision 2010
Voluntary Agreements	<i>Sec. 106:</i> DOE authorized to enter into voluntary agreements with industrial companies to reduce their energy intensity by at least 2.5% each year for ten years, and to publicize their achievements. Report including independent verification of a sample of energy savings.	DOE and EPA to seek agreements to reduce energy intensity 2.5% each year from 2007-2016. Require independent verification of all reductions below business-as-usual, and a report to Congress on assistance needed to help achieve the reductions.
Reporting Greenhouse Gas Emissions	No provision	Require all businesses that emit more than 100,000 tons of CO ₂ in a year to report such emissions to DOE. DOE to make available yearly plant-specific data.

ELECTRIC AND NATURAL GAS UTILITIES *(also see tax incentives at end)*

Item	H.R. 6 Conference Report (2005)	Alliance to Save Energy— Vision 2010
Energy Efficiency Performance Standard (EEPS)	<i>Sec. 139:</i> Authorizes a study by DOE, NARUC, and NASEO on state and regional policies to promote cost-effective programs to increase end-use energy efficiency (e.g., performance standards, PBFs, infrastructure planning).	Also requires state regulators and non-regulated utilities to determine within three years whether or not it is appropriate to direct the implementation of such energy efficiency policies and programs.
Public Benefits Fund (PBF)	<i>Sec. 140:</i> Authorizes 3-7 state pilot programs, with \$25 million in funding over 5 years, to develop plans and programs designed to reduce electricity and natural gas consumption or demand by at least 0.75% per year.	
Efficient Dispatch	<i>Sec. 1234, 1298:</i> Requires DOE study and FERC regional boards on economic dispatch.	No provision
Net Metering, Smart Metering, and Interconnection Standards	<p><i>Sec. 1251, 1252:</i> Requires state commissions to consider mandating the provision of net metering service to consumers with on-site generation from renewable and high efficiency sources, and of smart metering services.</p> <p><i>Sec. 1254:</i> Requires states to consider adopting standards for interconnection of distributed generation to the grid.</p>	No provision

CROSS-CUTTING MEASURES

Item	H.R. 6 Conference Report (2005)	Alliance to Save Energy—Vision 2010
Research, Development, and Deployment Funding	<p><i>Sec. 911:</i> Authorizes appropriations for energy efficiency research, development, demonstration and technology deployment programs of: FY06: \$783 million; FY07: \$865 million; & FY08: \$952 million.</p> <p>Specifies allocations for vehicles, solid-state lighting, electric vehicle battery use, and motors. Bill includes separate authorizations for distributed generation and for hydrogen and fuel cells.</p>	<p>Authorizes doubling of funding for federal energy efficiency programs over 2005-2010. 2010 funding allocation similar to budget in NCEP report.</p>
Greenhouse Gas Limits	<p>No provision</p>	<p>If there is legislation to limit the growth of greenhouse gas emissions through flexible cap-and-trade limits, <i>specific energy efficiency provisions</i> could spur deployment of energy efficiency technologies and practices, ensure that those who take efficiency measures receive the associated credits, and lower the cost of meeting the cap.</p>
Technology Project Incentives	<p><i>Sec. 1701-1704:</i> Authorizes loan guarantees for efficient end-use energy technology and other projects that reduce air pollutant or greenhouse gas emissions.</p>	<p>No provision</p>

TAX INCENTIVES

Item	H.R. 6 Conference Report (2005)	Alliance to Save Energy—Vision 2010
Buildings Tax Incentives		
Commercial buildings	<i>Sec. 1331:</i> Deduction up to \$1.80/square foot for buildings designed to use 50% less energy than required by the 2001 ASHRAE 90.1 model commercial code. Certification determined by the Secretary, including inspection and testing. Applies 2006-2007.	Deduction for efficient commercial buildings up to \$2.25/square foot. Applies through 2010.
New homes	<i>Sec. 1332:</i> Provides builders a credit up to \$2,000 for a home that saves at least 50% compared to the 2004 IECC code, and \$1,000 for an Energy Star manufactured home. Certification determined by the Secretary. Applies 2006-2007.	Provides builders a credit up to \$1,000 for a home that saves at least 30% compared to the 2004 IECC code, and \$2,000 for a home that saves 50% relative to the code. Manufactured homes eligible on same terms. Applies through 2007 (30%) or 2009 (50%).
Existing homes	<i>Sec. 1333:</i> Provides homeowners a credit for 10% of the cost of installing building envelope components consistent with the 2000 IECC code. No certification required. Capped at \$500, including the equipment credit below, of which only \$200 may be for windows. Applies 2006-2007.	Provides homeowners a credit up to \$2,000 based on verified percentage reduction of energy costs in 2006-2009, or up to \$300 in 2006 for 20% of the cost for installing building envelope components certified as consistent with the 2004 IECC code.
Heating and cooling equipment	<i>Sec. 1333:</i> Credits of \$300 for efficient central air conditioners, water heaters, and heat pumps, \$150 for furnaces and boilers, and \$50 for fans in furnaces. Capped at \$500, including the existing homes credit above. Applies 2006-2007.	Also includes a lower tier for most equipment, combined space and water heating systems, and different criteria and credit amounts in some cases. Applies 2006-2008.
Appliances	<i>Sec. 1334:</i> Provides manufacturers \$50-\$200 credits for increased production of efficient refrigerators, clothes washers, and dishwashers, similar to S. 1022 (Smith). Applies through 2006-2007.	Applies through 2010, with additional tiers and modified credit amounts in the later years.
Stationary fuel cells	<i>Sec. 1335, 1336:</i> 30% credit up to \$500 per 0.5 kW, similar to S. 671. Applies 2006-2007.	No provision
Transportation Tax Incentives		
Vehicle fuel use feebate	No provision	Applies a revenue-neutral feebate to manufacturers of light-duty passenger vehicles (including SUVs), with a rebate for efficient new vehicles paid for by a fee on gas-guzzling vehicles. Based on \$0.25/gallon for the anticipated fuel use by the vehicle over its life. The dividing line between rebates and fees would be reset each year to balance cost and revenue.

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Hybrid and diesel vehicles	<i>Sec. 1341:</i> Provides purchasers of hybrid and lean burn diesel vehicles a credit of \$250-\$3,400 based on fuel economy and gas savings, and a larger credit for heavy-duty vehicles (\$7,500 - \$30,000), capped for each manufacturer starting at 60,000 vehicles. Applies 2006-2010 (2009 for heavy-duty vehicles).	Cap for manufacturers starts at 80,000 vehicles.
Fuel cell vehicles	<i>Sec. 1341:</i> Credit for fuel cell vehicles of \$4,000-\$12,000 based on fuel economy and year, and a larger credit for heavy-duty vehicles. Applies 2006-2014.	No provision
SUVs	No provision	Redefines passenger vehicles in the tax code to include SUVs and minivans up to 14,000 pounds, thus eliminating the small business deduction up to \$25,000 for SUVs.
Industrial Tax Incentives		
Combined heat and power	No provision	Provides a 10% investment tax credit for combined heat and power systems up to 15 MW, including systems that use recycled energy. Applies 2006-2008.
Utilities Tax Incentives		
Time-of-use meters	No provision	No provision

Estimated Energy Savings from the Policies
(Annual savings in 2020)

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	<i>Energy Savings (quads)</i>	<i>Oil (mbd)</i>	<i>Natural Gas (bcf)</i>	<i>Electricity Demand (GW)</i>	<i>Energy Cost (billion \$)</i>	<i>Carbon Dioxide (MMT)</i>	
Appliance standards	1.03	1.11	0.00	642	30.2	8.9	75
Energy labels	0.26	0.28	0.00	148	6.4	2.2	19
CAFE reforms	-0.26	3.76	1.78	0	0.0	45.1	264
Tire standard	0.00	0.00					
Oil savings	0.00	0.00					
Industrial voluntary agreements	0.19	0.19	0.03	54	0.0	1.5	10
State and utility programs	0.06	0.23	0.00	100	3.5	1.9	17
Interconnection	0.11	0.00					
RD&D funding	0.13	0.25	0.05	56	2.1	2.5	15
Tax incentives							
Buildings	0.37	0.94	0.00	662	14.4	7.4	60
Vehicles	0.09	1.52	0.73	0	0.0	18.4	106
Industry	0.00	0.27	0.00	267	0.7	2.0	14
Total	2.15	7.17	1.86	1970	59.1	72.6	482
% Energy use	1.7%	5.7%	7.0%	6.5%	5.5%	na	6.4%

Estimated savings from the Alliance to Save Energy or the American Council for an Energy Efficient Economy, compared to the Energy Information Administration 2005 Annual Energy Outlook baseline. Estimates assume partial funding of authorized programs and voluntary targets partially met.

Total includes other policies, and adjusted to remove redundant savings.