

# Review of The Energy Policy Act of 2005

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August 2, 2005

On July 29, 2005, after a four and a half year odyssey, the Congress finally passed an energy bill and sent it to the President for his signature. (Details on the House and Senate votes are at the end of this document.) A copy of the final conference report of H.R. 6, The Energy Policy Act of 2005, may be found at <http://energy.senate.gov/public/>. A copy of the final public law will eventually be available at <http://thomas.loc.gov/>.

[Compilations of the statutes amended by the bill may be downloaded from the House Energy and Commerce Committee website at <http://energycommerce.house.gov/publications.htm>.]

The following is a summary of some of the high profile and less high profile but significant issues addressed during the long debate. (It is not an exhaustive summary and undoubtedly omits some key provisions.) Some of these issues were not included in the final bill, but remain in play in one form or another. The table of contents of the final bill is 19 pages, so this is a very limited effort at touching on some of the highlights. There are no definitive analyses of the bill available yet from the Congressional Research Service (or the exhausted Committee staff.) The tax provisions follow the authorizing provisions.

Several points to bear in mind, first the Department of Energy has unlimited authority under the Department of Energy Organization Act, P.L. 95-91 (Aug. 4, 1977), to carryout energy research, development and demonstration programs. Authorizations for loan guarantees, various mandates for specific actions and the direct spending programs are significant changes to current law. There are billions of dollars of authorizations for federal R&D and other programs included in the 1724 pages of the conference report. However, authorizations are not guarantees of funding. To what extent the Administration implements these various authorizations will become apparent in future budget requests. The actual availability of funding will be determined by the Congress in subsequent annual appropriations. (The current budget deficit and efforts to cut discretionary spending do not bode well for full funding.) Only the tax measures in Title XIII and several “direct spending” programs are guaranteed funding. In other words, the great game now proceeds to the next stage – lobbying for appropriations, and extensions of the tax credits....

***Arctic National Wildlife Refuge (ANWR):*** The bill does not open ANWR to oil and gas leasing. Opening ANWR is still a live issue in the pending budget reconciliation bill.

***Auto Fuel Efficiency:*** No new fuel efficiency standards are required; the National Highway Traffic Safety Administration is required to do a one year study on the effects of fuel efficiency standards on the auto industry, gasoline supply, and air quality. (Sec. 773) A provision in the Senate passed bill requiring the President “*to develop and implement measures to conserve petroleum in end-uses throughout the economy of the United States sufficient to reduce total demand for petroleum in the United States by 1,000,000 barrels per day from the amount projected for calendar year 2015*” was dropped from the final conference report. (I mention this

because this action by the conference was highly publicized.) An array of tax credits are offered for the purchase of certain high efficiency, hybrid and fuel cell vehicles.

***MTBE and Oxygen Mandate:*** The oxygen requirement for reformulated fuels imposed under the Clean Air Act Amendments (CAAA) of 1990 is repealed. (Sec. 1504) After considerable controversy and efforts at a compromise, the final bill does not provide any liability protection for the petroleum sector from lawsuits by cities and others for MTBE contaminated water supplies. However, parties can seek to move any such lawsuits to federal district court. This is viewed as a significant, although limited, victory for the petroleum sector.

***Ethanol:*** A national renewable fuel standard is established requiring that gasoline sold in the United States contain a specified volume of biofuels (mostly corn ethanol). (Title XV) The annual volume of renewable fuels would increase from 4.0 billion gallons per year in 2006 to 7.5 billion gallons in 2012. The volume would be allocated to all refiners, marketers and importers on a pro rata basis. A credit trading scheme will be established. The liability protection for ethanol that had been in the Senate passed bills since 2002, totally under the press's radar despite the focus on the MTBE provision, was dropped when the MTBE deal fell apart.

[The Renewable Fuel Standard (RFS) created by this bill will involve an extensive change to fuel regulations and petroleum refining and marketing. The full economic and environmental implications will only be revealed in time. For example, the air quality issues associated with blending low levels of ethanol in reformulated gasoline were largely disregarded. The California Air Resources Board has been studying the problem of evaporative emissions since MTBE was banned in 2004. Senator Feinstein (D-CA) had an amendment accepted in the Senate to exempt California from a seasonal averaging provision (p.1498 beginning at line 19). It is my understanding that California is the only state exempt under 209(b) of the Clean Air Act. I mention this not to be derogatory toward ethanol, but to highlight the air quality issue which has been studied by EPA since the late 1980's. If states other than California petition EPA for waivers based on environmental impacts, the uncertainty for the fuels industry could drag on for an extended period of time. For more background, see a paper I wrote on the 1990 Clean Air Act amendment that created the original oxygen mandate.  
<http://www.pirinc.org/download/congressionalactiontomandateMTBE.pdf>]

***Renewable Portfolio Standard (RPS):*** The bill did not include a federal requirement that utilities purchase a certain percentage of electricity from renewable sources. An RPS has been included in all Senate passed energy bills since 2002. There is, however, a requirement that the federal government purchase an increasing portion of its power needs from renewable sources - 3% in fiscal year 2007 increasing to 7.5% in 2013. (Sec. 203) A federal purchase requirement should be a catalyst for the federal government to establish a standardized credit trading regime to facilitate a national renewable energy market.

***Climate Change:*** No limits on greenhouse gases, new inventory or credit trading schemes are included. A new cabinet-level advisory committee is established to develop a national policy to address climate change and to promote technologies to reduce greenhouse gas emissions. Various authorizations for research and demonstration projects for climate friendly technologies are included. (Titles XVI and XVII)

***CNOOC bid for Unocal:*** The bill requires the Energy, Defense, and Homeland Security departments to conduct a study into the national security implications of China's increasing energy requirements and to assess its impact on the global market and U.S. foreign policy. This provision was included to slow down the acquisition of Unocal by the Chinese oil company CNOOC. While this was driven by the proposed acquisition, the Congress was reacting at least in part to pent up frustration with the lack of reciprocity in non-tariff matters on the part of the Chinese. (Sec. 1837)

## **Energy Efficiency**

***Appliance Standards:*** The bill includes energy efficiency standards for 15 new products, including commercial refrigeration, commercial heaters, ceiling fans, traffic signals, and other home and business products. (The American Council for an Energy Efficient Economy has done extensive analysis of the impact of the various efficiency provisions. (<http://www.aceee.org/>))

***Daylight Savings Time (DST):*** Effective in 2007, DST will begin the second Sunday in March (instead of the first Sunday in April) continuing through the first Sunday in November (instead of the last Sunday in October). This was opposed by a number of groups concerned about children going to school in the dark and the lack of synchronization with foreign airlines. In the end, the conferees shortened the original House passed change. (Sec. 110)

## **Renewable Energy**

***Hydroelectricity:*** The bill includes a major reform of the federal licensing procedure for hydroelectric dams. The modifications allow an applicant to propose an alternative to mandatory conditions placed on hydropower licenses by federal resource agencies (Departments of Interior, Commerce and Agriculture). If a proposed alternative met the statutory environmental and resource protection standards the alternative would be accepted. The bill also includes incentives for improving the efficiency of existing hydroelectric dams and for modifying existing dams to produce electricity. Hydro licensing reform has been a goal of the industry for years, but has been highly controversial with the environmental community. (Subtitle C)

## **Oil and Gas**

***Coastal Impact Assistance Program:*** The measure provides \$1 billion – \$250 million per year for fiscal years 2007 through 2010 to six coastal energy-producing states: Louisiana, Texas, Mississippi, Alabama, Alaska and California. Each state would be allocated a share based on the oil and gas production off its coast, with Louisiana standing to receive 54 percent, or \$135 million per year. This is direct spending not subject to appropriations. The coastal states receive one third of the royalties from federal production in the first three miles beyond the state's seaward boundary. The states with offshore production have argued that the environmental pressures and associated infrastructure needs warrant a greater share of the federal royalties. Royalties from onshore federal production are shared 50-50, prior to deducting administrative costs, with the state where the production occurs. (Sec. 384)

***Inventory of Offshore Oil and Gas Resources:*** The bill requires an inventory and analysis of offshore oil and gas resources. (Sec. 357) The inventory covers all areas beneath the U.S. Outer Continental Shelf (OCS) and authorizes acquisition of seismic data. This provision met with strong resistance from many, but not all, coastal state members of Congress. This could be the first real assessment of offshore resources in nearly 20 years using current technology or it could just set off another round of OCS moratoria. The OCS leasing moratoria off the east and west coasts of the U.S. were the result of limitations imposed on the Minerals Management Service during the annual appropriations process until the first President Bush declared a broad moratoria in 1990 which was extended by the Clinton Administration

***Royalty Relief for Oil and Gas Leases:*** Various provisions grant Interior Department authority to reduce royalty payments to maintain or stimulate oil and gas development offshore and for marginal wells. (Title III Subtitle E)

***Liquefied Natural Gas (LNG):*** The bill contains a clarification of the authority of the Federal Energy Regulatory Commission (FERC) to approve the construction, expansion or operation of any facility that imports or processes liquefied natural gas. (Sec. 311) The measure directs the FERC to consult with state governments about the safety of sites for liquefaction or gasification facilities.

***Ultra-Deepwater and Unconventional Onshore Natural Gas and Other Petroleum Research and Development Program:*** The bill establishes a research program to be managed by a non-profit consortium selected by the Secretary of Energy to manage oil and gas R&D. \$50 million of federal oil and gas royalty revenues will be dedicated to the program for fiscal years 2007 to 2017. The funds are direct spending, not subject to appropriation. (Title IX, Subtitle J)

## **Coal – Title IV**

***Clean Power Initiative:*** The bill establishes the parameters of a new clean coal technology program, co-funded by the government and industry. The bill authorizes \$200 million annually for fiscal years 2006 through 2014 for the initiative. It specifically requires that 70% of the funds for any project be used for coal gasification or other advanced technologies that produce a concentrated stream of carbon dioxide. \$125 million is authorized for an experimental clean-coal plant as well as loan guarantees for various demonstration projects. (Subtitles A and B) This program is subject to appropriation, but given the support for coal in the Congress and the Administration it will likely be well funded.

## **Nuclear Energy and Related Issues (Title VI)**

***Insurance:*** The Price Anderson Act limiting liability for nuclear power-plant accidents is reauthorized through 2025. The law requires nuclear plant operators to purchase insurance for up to \$10 billion in damages with the federal government responsible for any additional damages. (Subtitle A)

***Safety, Security and Waste Disposal:*** The bill includes a number of measures aimed at enhancing the security of commercial nuclear reactors, including greater cooperation between the Nuclear Regulatory Commission (NRC) and the Department of Homeland Security on siting of new facilities. Tighter security and background checks are required for personnel at nuclear facilities; security guards would be allowed to carry firearms at the NRC's discretion. The Department of Energy is directed to report to Congress within one year with a long-term plan for handling greater-than-Class C low-level radioactive waste and a short-term plan on continuing recovery of sealed radioactive sources pending the availability of a permanent disposal facility. (Subtitles B and D)

***Enriched Uranium Sales:*** The sale and export of highly enriched uranium is authorized for medical isotope production to Canada, Belgium, France, Germany, and the Netherlands. (Sec. 630)

***Next Generation Nuclear Plant Project:*** A \$1.25 billion fund is authorized for a prototype Next Generation Nuclear Plant project at Idaho National Laboratory to produce both electricity and hydrogen. The bill also authorizes government support to offset the financial impact of delays beyond industry's control during construction and at the start of operations for as many as six new nuclear power reactors. (Subtitle C) Funding is authorized for the Advanced Fuel Cycle Initiative - research and development aimed at developing advanced nuclear power plants, more proliferation-resistant nuclear fuel and improved methods for managing used nuclear fuel. (Sec. 953)

## Electricity – Title XII

**Changes to federal electricity authorities are the most significant provisions of the bill. The following is an extremely abbreviated listing of a few of the provisions.**

***Reliability:*** The bill establishes mandatory electric reliability rules for all market participants and creates a self-regulating reliability organization, subject to oversight by the FERC. (The existing North American Electric Reliability Council (NERC) is a voluntary organization.)

***Transmission siting:*** FERC is granted limited backstop authority to site electric transmission facilities located in national interest electric transmission corridors if the states cannot or will not act. The bill contains a number of measures to streamline permitting, including establishing DOE as the lead agency for permit processing. (Subtitle B)

***PUHCA Repeal:*** The bill repeals the Public Utility Holding Company Act (PUHCA) and transfers consumer protection authorities from the Securities and Exchange Commission (SEC) to FERC and the states. FERC is given authority on electric utility merger reviews and additional enforcement authorities. (Subtitles F and G)

***PURPA Reform:*** The bill establishes market conditions necessary to eliminate the Public Utility Regulatory Policies Act's (PURPA) mandatory purchase obligation, and revises the criteria for new qualifying facilities seeking to sell power under the mandatory purchase obligation.

## Summary of Key Energy Tax Provisions

The following is a summary of some of the most significant and/or publicized tax measures included in Title XIII of H.R. 6. The net cost of the tax title of the bill is \$11.525 billion over ten years, \$14.553 billion in tax expenditures and \$3.028 billion in revenue raisers. Most, but not all, of the tax incentives do not take effect until January 1, 2006. There are varying expiration periods and means of qualification as well. In order to hold down costs, several provisions, the clean coal and advanced nuclear incentives for example, will only be available for a limited number of facilities.

For more detail on the complete tax title including a description of current law see the “Description and Technical Explanation of the Conference Agreement” prepared by the staff of the Joint Committee on Taxation (JCT) at <http://www.house.gov/jct/x-60-05.pdf>. For cost estimates of the various tax provisions see <http://www.house.gov/jct/x-59-05.pdf>. Refer also to Title XIII of H.R. 6 for the actual text of the amendments to the code.

The costs associated with the various tax provisions are estimated over five and ten years. There are some provisions involving changes to depreciation schedules, for example, that reduce federal revenues in the early years but increase revenues in the out years. Only the revenue effect during the budget window of 10 years is estimated by the JCT. The documents prepared by the JCT can be a little confusing since the cost estimates for various line items are sometimes lumped together in one cost estimate. Adding to the confusion, the JCT line items do not necessarily line up with the separate provisions amending the tax code as found in the actual text of the Conference Report of H.R. 6.

### Oil and Gas Production and Distribution and Refining

*Upstream.* Geological and geophysical expenditures for exploration in the U.S. may be amortized over two years. (\$974 mil.) Natural gas gathering lines treated may be depreciated over seven years. (\$16 mil.) In spite of all the negative press, I would note that both of these changes have generally been supported by the Department of the Treasury since the early Clinton Administration.

*Refinery upgrades.* Allows expensing of 50% of refinery investments that increase the capacity of an existing refinery by at least 5 percent or increase the throughput of qualified fuels (oil shale and tar sands) by at least 25 percent. (\$406 mil.) This is a significant expansion over previous versions of the energy bill which only included incentives for small refiners.

*Natural gas distribution lines.* Tax depreciation of natural gas distribution lines has been reduced from 20 to 15 years for property placed in service between April 11, 2005 and April 11, 2011. (\$1.019 bil.)

## **Electricity Transmission**

*Transmission expansion.* Shortens depreciation schedule for 69 kVa and higher transmission property to 15 years from 20 years. (\$1.239) Extends a recent tax change that modifies the 15% limitation on asset investments by electric cooperatives for open access transmission of electricity. (\$277 mil.)

*Transco incentive.* Reduces the tax penalty associated with transferring transmission assets to an independent transmission company through 2007 by allowing an 8-year delay in tax payments. (Raises \$19 mil. since this provision is expected to result in sales, and thereby tax revenues, that would not otherwise occur in the budget window. This is an extension of the change passed in 2004.)

## **Coal**

*Clean coal incentives.* Three new investment tax credits are created for clean coal facilities: a 15 percent and 20 percent investment tax credit for clean coal facilities producing electricity; and a 20 percent credit for industrial gasification projects. Integrated gasification combined cycle (IGCC) projects get a 20 percent investment tax credit and other advanced coal-based projects that produce electricity get a 15 percent credit. There is a limit of \$800 million for IGCC projects and up to \$500 million for other advanced coal-based technologies and up to \$350 million for industrial gasification. Unlike other generation incentives, projects have to apply and be granted the credits in order to keep the cost of the program under the absolute caps. (\$1.612 bil.)

*Air pollution control equipment.* This provision provides a seven year recovery period (currently 15 years) for the cost of air pollution control equipment installed at a coal fired power plant which was not in operation before January 1, 1976. (\$1.147 bil.)

## **Nuclear**

*Treatment of decommissioning costs.* This provision modifies a rule that required nuclear decommissioning funds to be collected under cost of service rates. (\$1.293 bil.) This penalized nuclear plants that sell power under competitive contracts today.

*New nuclear plant incentive.* Establishes a tax credit of 1.8 cents per kWh for the first 8 years of production from new nuclear power facilities. Facilities in service after the date of enactment and prior to January 1, 2021. To receive the credit, a facility has to apply for and receive an allocation of the total national cap of 6000 MW. (\$278 mil.)

## **Renewable and Distributed Electricity Generation**

*Sec. 45 renewable generation credit.* The renewable electricity production credit (Sec. 45) is extended for two years to cover facilities placed-in-service through December 31, 2007. Facilities include wind, biomass, geothermal, landfill gas, and small irrigation power facilities

and municipal solid waste (MSW), which includes trash combustion and landfill gas facilities. Incremental generation from efficiency improvements at existing hydroelectric facilities and electrification of nonhydroelectric dams and coal produced on Indian lands are added as new qualifying energy resources. The credit applies to the first ten years of production; for most technologies the credit is 1.9 cents per kWh generated. (Open loop biomass (biomass not specifically grown as an energy crop), small irrigation, MSW and hydro receive .9 cents per kWh.) Rural Electric Cooperatives also become eligible for the credit. Indian coal receives a credit of \$1.50 per ton for the first four years of production and \$2.00 per ton for the last three years of the seven year period. (\$2.747 bil.) The credits are indexed for inflation.

*Clean Renewable Energy Bonds (“CREBs”).* A new category of bonds are authorized for facilities qualifying for tax credit under Section 45. Qualified issuers include governmental bodies (including Indian tribal governments) and mutual or cooperative electric companies. (\$411 mil.)

*Residential incentives.* A new 30% income tax credit is available for residential investments in fuel cells, photovoltaic systems and solar water heating property (not for used swimming pools and hot tubs). Dollar caps per project apply. (\$31 mil.)

*Business incentives.* The credit for commercial installation of solar systems is increased to 30%, from the current 10%, for two years. A 30% credit for business installation of qualified fuel cells and 10% credit for stationary microturbine power plants are available for two years. (\$222 mil.)

## **Energy Efficiency**

*Residential incentives.* Various investment tax credits for improvements to existing building efficiency and for purchase of efficient equipment, including furnaces, water heaters and other property. (\$556 mil.) See bill text or tax summary referenced above for details.

*Energy efficient commercial building deduction.* The provision allows a deduction for investments in equipment to improve energy efficiency at commercial buildings to reduce annual energy and power consumption by 50 percent. (\$243 mil.)

*Credit for manufacture of efficient appliances.* A set of tax credits for manufacturers of energy efficient dishwashers, clothes washers, and refrigerators is also included. (\$180 mil.)

*Business credit for new efficient home construction.* Provides contractor credits for new home construction meeting specific standards. (\$28 mil.)



## Vehicles and Alternative Fuels

*Vehicle incentives.* There are a complex set of incentives for purchases of fuel cell, hybrid and lean-burn and alternative fuel vehicles, including medium and heavy duty trucks. The incentives are not effective until 2006. (\$874 mil.)

*Alternative vehicle fuels.* There is a 30% credit for installation of alternative fuel refueling property at businesses or homes. This includes E85 (85% ethanol/15% gasoline blend), compressed natural gas, liquefied natural gas, liquefied petroleum gas, and hydrogen and any mixture of diesel at least 20% biodiesel. (\$71 mil.) Small producers of biodiesel and ethanol receive a supplemental tax credit of 10 cents per gallon. (\$181 mil.) Extension through 2008 of the income tax credit, excise tax credit and payment provisions for biodiesel. (\$194 mil.)

## Taxes on the Oil Sector to Raise Revenues

The tax for the Oil Spill Liability Trust Fund is reinstated. (Raises 2.508 bil.)

The tax for the Leaking Underground Storage Tank Trust (LUST) Fund is extended through September 30, 2011. (Raises \$349 mil.)

## House and Senate Votes on the Final Conference Report

On July 28, 2005, the House agreed to the conference report with a bipartisan vote of 275 to 156. 31 Republicans voted against the bill, 75 Democrats voted for the bill. The complete vote may be found at <http://clerk.house.gov/evs/2005/roll445.xml>

On July 29, 2005, the Senate agreed to the conference report with a bipartisan vote of 74 to 26. (Many of the no votes in the Senate were, at least in part, due to the objection to a national ethanol mandate.) The Senate vote follows:

### YEAs ---74

Akaka (D-HI)	DeMint (R-SC)	Lugar (R-IN)
Alexander (R-TN)	DeWine (R-OH)	McConnell (R-KY)
Allard (R-CO)	Dole (R-NC)	Mikulski (D-MD)
Allen (R-VA)	Domenici (R-NM)	Murkowski (R-AK)
Baucus (D-MT)	Dorgan (D-ND)	Nelson (D-NE)
Bayh (D-IN)	Durbin (D-IL)	Obama (D-IL)
Bennett (R-UT)	Ensign (R-NV)	Pryor (D-AR)
Bingaman (D-NM)	Enzi (R-WY)	Roberts (R-KS)
Bond (R-MO)	Frist (R-TN)	Rockefeller (D-WV)
Brownback (R-KS)	Graham (R-SC)	Salazar (D-CO)
Bunning (R-KY)	Grassley (R-IA)	Santorum (R-PA)
Burns (R-MT)	Hagel (R-NE)	Sessions (R-AL)
Burr (R-NC)	Harkin (D-IA)	Shelby (R-AL)

Byrd (D-WV)  
 Cantwell (D-WA)  
 Chambliss (R-GA)  
 Coburn (R-OK)  
 Cochran (R-MS)  
 Coleman (R-MN)  
 Collins (R-ME)  
 Conrad (D-ND)  
 Cornyn (R-TX)  
 Craig (R-ID)  
 Crapo (R-ID)  
 Dayton (D-MN)

Hatch (R-UT)  
 Hutchison (R-TX)  
 Inhofe (R-OK)  
 Inouye (D-HI)  
 Isakson (R-GA)  
 Johnson (D-SD)  
 Kohl (D-WI)  
 Landrieu (D-LA)  
 Levin (D-MI)  
 Lieberman (D-CT)  
 Lincoln (D-AR)  
 Lott (R-MS)

Smith (R-OR)  
 Snowe (R-ME)  
 Specter (R-PA)  
 Stabenow (D-MI)  
 Stevens (R-AK)  
 Talent (R-MO)  
 Thomas (R-WY)  
 Thune (R-SD)  
 Vitter (R-LA)  
 Voinovich (R-OH)  
 Warner (R-VA)

### NAYs ---26

Biden (D-DE)  
 Boxer (D-CA)  
 Carper (D-DE)  
 Chafee (R-RI)  
 Clinton (D-NY)  
 Corzine (D-NJ)  
 Dodd (D-CT)  
 Feingold (D-WI)  
 Feinstein (D-CA)

Gregg (R-NH)  
 Jeffords (I-VT)  
 Kennedy (D-MA)  
 Kerry (D-MA)  
 Kyl (R-AZ)  
 Lautenberg (D-NJ)  
 Leahy (D-VT)  
 Martinez (R-FL)  
 McCain (R-AZ)

Murray (D-WA)  
 Nelson (D-FL)  
 Reed (D-RI)  
 Reid (D-NV)  
 Sarbanes (D-MD)  
 Schumer (D-NY)  
 Sununu (R-NH)  
 Wyden (D-OR)