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Energy Tax Policy: History and Current Issues

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Summary

Historically, U.S. federal energy tax policy promoted the supply of oil and gas. However, the 1970s witnessed (1) a significant cutback in the oil and gas industry's tax preferences, (2) the imposition of new excise taxes on oil, and (3) the introduction of numerous tax preferences for energy conservation, the development of alternative fuels, and the commercialization of the technologies for producing these fuels (renewables such as solar, wind, and biomass, and nonconventional fossil fuels such as shale oil and coalbed methane).

The Reagan Administration, using a free-market approach, advocated repeal of the windfall profit tax on oil and the repeal or phase-out of most energy tax preferences — for oil and gas, as well as alternative fuels. Due to the combined effects of the Economic Recovery Tax Act and the energy tax subsidies that had not been repealed, which together created negative effective tax rates in some cases, the actual energy tax policy differed from the stated policy. The George H. W. Bush and Bill Clinton years witnessed a return to a much more activist energy tax policy, with an emphasis on energy conservation and alternative fuels. While the original aim was to reduce demand for imported oil, energy tax policy was also increasingly viewed as a tool for achieving environmental and fiscal objectives. The Clinton Administration's energy tax policy emphasized the environmental benefits of reducing greenhouse gases and global climate change, but it will also be remembered for its failed proposal to enact a broadly based energy tax on Btus (British thermal units) and its 1993 across-the-board increase in motor fuels taxes of 4.3¢/gallon.

The Working Families Tax Relief Act of 2004 (P.L. 108-311) and the American Jobs Creation Act of 2004 (P.L. 108-357) each contained several energy-related tax breaks. The George W. Bush Administration has proposed a limited number of energy tax measures, but the 109th Congress enacted the Energy Policy Act of 2005 (P.L. 109-58) — comprehensive energy legislation that included numerous energy tax incentives to increase the supply of, and reduce the demand for, fossil fuels and electricity. Signed by President Bush on August 8, 2005, it provided a net energy tax cut of $11.5 billion ($14.5 billion gross energy tax cuts, less $3 billion of energy tax increases). The act included tax incentives for energy efficiency in residential and commercial buildings and for more energy efficient vehicles, and tax incentives for several types of alternative and renewable resources, such as solar and geothermal. The current energy tax structure is dominated by revenues from a long-standing gasoline tax (which serves as a quasi user fee for the use of the highway infrastructure), and tax incentives for alternative and renewable fuels supply relative to energy from conventional fossil fuels. Although several additional tax incentives for conventional fossil fuels and electricity were added, the act does not alter the current policy stance favoring renewables on a Btu-corrected basis.

This report replaces CRS Issue Brief IB10054, *Energy Tax Policy*, by Salvatore Lazzari.

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Introduction

Energy tax policy involves the use of the government's main fiscal instruments — taxes (financial disincentives) and tax subsidies (or incentives) — to alter the allocation or configuration of energy resources. In theory, energy taxes and subsidies, like tax policy instruments in general, are intended either to correct a problem or distortion in the energy markets or to achieve some social, economic (efficiency, equity, or even macroeconomic), environmental, or fiscal objective. In practice, however, energy tax policy in the United States is made in a political setting, being determined by the views and interests of the key players in this setting: politicians, special interest groups, bureaucrats, and academic scholars. This implies that the policy does not generally, if ever, adhere to the principles of economic or public finance theory alone; that more often than not, energy tax policy may compound existing distortions, rather than correct them.[1]

The idea of applying tax policy instruments to the energy markets is not new, but until the 1970s, energy tax policy had been little used, except for the oil and gas industry. Recurrent energy-related problems since the 1970s — oil embargoes, oil price and supply shocks, wide petroleum price variations and price spikes, large geographical price disparities, tight energy supplies, and rising oil import dependence, as well as increased concern for the environment — have caused policymakers to look toward energy taxes and subsidies with greater frequency.

Comprehensive energy policy legislation containing numerous tax incentives, and some tax increases on the oil industry, was signed on August 8, 2005 (P.L. 109-58). The law, the Energy Policy Act of 2005, contains about $15 billion in energy tax incentives over 11 years. On May 17, 2006, the President signed a $70 billion tax reconciliation bill (P.L. 109-222) that further increases taxes on major integrated oil companies by extending the depreciation recovery period for geological and geophysical costs from two to five years (thus taking back some of the benefits enacted under the 2005 law).

This report discusses the history, current posture, and outlook for federal energy tax policy. It also discusses recent energy tax proposals, focusing on the major energy tax provisions enacted in the 109th Congress. (For a general economic

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[1] The theory underlying these distortions, and the nature of the distortions, is discussed in detail in a companion report: CRS Report RL30406, *Energy Tax Policy: An Economic Analysis*, by Salvatore Lazzari.

analysis of energy tax policy, see CRS Report RL30406, *Energy Tax Policy: An Economic Analysis*, by Salvatore Lazzari.)

Background

The history of federal energy tax policy can be divided into four eras: the oil and gas period from 1916 to 1970, the energy crisis period of the 1970s, the free-market era of the Reagan Administration, and the post-Reagan era — including the period since 1998, which has witnessed a plethora of energy tax proposals to address recurring energy market problems.

Energy Tax Policy from 1918 to 1970: Promoting Oil and Gas

Historically, federal energy tax policy was focused on increasing domestic oil and gas reserves and production; there were no tax incentives for energy conservation or for alternative fuels. Two oil/gas tax code preferences embodied this policy: (1) expensing of intangible drilling costs (IDCs) and dry hole costs, which was introduced in 1916, and (2) the percentage depletion allowance, first enacted in 1926 (coal was added in 1932).[2]

Expensing of IDCs (such as labor costs, material costs, supplies, and repairs associated with drilling a well) gave oil and gas producers the benefit of fully deducting from the first year's income ("writing off") a significant portion of the total costs of bringing a well into production, costs that would otherwise (i.e., in theory and under standard, accepted tax accounting methods) be capitalized (i.e., written off during the life of the well as income is earned). For dry holes, which comprised on average about 80% of all the wells drilled, the costs were also allowed to be deducted in the year drilled (expensed) and deducted against other types of income, which led to many tax shelters that benefitted primarily high-income taxpayers. Expensing accelerates tax deductions, defers tax liability, and encourages oil and gas prospecting, drilling, and the development of reserves.

The oil and gas percentage depletion allowance permitted oil and gas producers to claim 27.5% of revenue as a deduction for the cost of exhaustion or depletion of the deposit, allowing deductions in excess of capital investment (i.e, in excess of adjusted cost depletion) — the economically neutral method of capital recovery for the extractive industries. Percentage depletion encourages faster mineral development than cost depletion (the equivalent of depreciation of plants and equipment).

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[2] Tax preferences are special tax provisions — such as tax credits, exemptions, exclusions, deductions, deferrals, or favorable tax rates — that reduce tax rates for the preferred economic activity and favored taxpayers. Such preferences, also known as tax expenditures or tax subsidies, generally deviate from a neutral tax system and from generally accepted economic and accounting principles unless they are targeted to the correction of preexisting market distortions.

These and other tax subsidies discussed later (e.g., capital gains treatment of the sale of successful properties, the special exemption from the passive loss limitation rules, and special tax credits) reduced marginal effective tax rates in the oil and gas industries, reduced production costs, and increased investments in locating reserves (increased exploration). They also led to more profitable production and some acceleration of oil and gas production (increased rate of extraction), and more rapid depletion of energy resources than would otherwise occur. Such subsidies tend to channel resources into these activities that otherwise would be used for oil and gas activities abroad or for other economic activities in the United States. Relatively low oil prices encouraged petroleum consumption (as opposed to conservation) and inhibited the development of alternatives to fossil fuels, such as unconventional fuels and renewable forms of energy. Oil and gas production increased from 16% of total U.S. energy production in 1920 to 71.1% of total energy production in 1970 (the peak year).

Energy Tax Policy During the 1970s: Conservation and Alternative Fuels

Three developments during the 1970s caused a dramatic shift in the focus of federal energy tax policy. First, the large revenue losses associated with the oil and gas tax preferences became increasingly hard to justify in the face of increasing federal budget deficits — and in view of the longstanding economic arguments against the special tax treatment for oil and gas, as noted in the above paragraph. Second, heightened awareness of environmental pollution and concern for environmental degradation, and the increased importance of distributional issues in policy formulation (i.e., equity and fairness), lost the domestic oil and gas industry much political support. Thus, it became more difficult to justify percentage depletion and other subsidies, largely claimed by wealthy individuals and big vertically integrated oil companies. More importantly, during the 1970s there were two energy crises: the oil embargo of 1973 — also known as the first oil shock — and the Iranian Revolution in 1978-1979, which focused policymakers' attention on the problems (alleged "failures") in the energy markets and how these problems reverberated throughout the economy, causing stagflation, shortages, productivity problems, rising import dependence, and other economic and social problems.

These developments caused federal energy tax policy to shift from oil and gas supply toward energy conservation (reduced energy demand) and alternative energy sources.

Three broad actions were taken through the tax code to implement the new energy tax policy during the 1970s. First, the oil industry's two major tax preferences — expensing of IDCs and percentage depletion — were significantly reduced, particularly the percentage depletion allowance, which was eliminated for the major integrated oil companies and reduced for the remaining producers. Other oil and gas tax benefits were also cut back during this period. For example, oil- and gas-fired boilers used in steam generation (e.g., to generate electricity) could no longer qualify for accelerated depreciation as a result of the Energy Tax Act of 1978 (as discussed below).

The second broad policy action was the imposition of several new excise taxes penalizing the use of conventional fossil fuels, particularly oil and gas (and later coal). The Energy Tax Act of 1978 (ETA, P.L. 95-618) created a federal "gas guzzler" excise tax on the sale of automobiles with relatively low fuel economy ratings. This tax, which is still in effect, currently ranges from $1,000 for an automobile rated between 21.5 and 22.5 miles per gallon (mpg) to $7,700 for an automobile rated at less than 12.5 mpg. Chief among the taxes on oil was the windfall profit tax (WPT) enacted in 1980 (P.L. 96-223). The WPT imposed an excise tax of 15% to 70% on the difference between the market price of oil and a predetermined (adjusted) base price. This tax, which was repealed in 1988, was part of a political compromise that decontrolled oil prices. (Between 1971 and 1980, oil prices were controlled under President Nixon's Economic Stabilization Act of 1970 — the so-called "wage-price freeze.") (For more detail on the windfall profit tax on crude oil that was imposed from 1980 until its repeal in 1988, see CRS Report RL33305, *The Windfall Profit Tax on Crude Oil: Implications for Current Energy Policy*, by Salvatore Lazzari.)

Another, but relatively small, excise tax on petroleum was instituted in 1980: the environmental excise tax on crude oil received at a U.S. refinery. This tax, part of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (P.L. 96-510), otherwise known as the "Superfund" program, was designed to charge oil refineries for the cost of releasing any hazardous materials that resulted from the refining of crude oil. The tax rate was set initially at 0.79¢ ($0.0079) per barrel and was subsequently raised to 9.70¢ per barrel. This tax expired at the end of 1995, but legislation has been proposed since then to reinstate it as part of Superfund reauthorization.

The third broad action taken during the 1970s to implement the new and refocused energy tax policy was the introduction of numerous tax incentives or subsidies (e.g., special tax credits, deductions, exclusions) for energy conservation, the development of alternative fuels (renewable and nonconventional fuels), and the commercialization of energy efficiency and alternative fuels technologies. Most of these new tax subsidies were introduced as part of the Energy Tax Act of 1978 and expanded under the WPT, which also introduced additional new energy tax subsidies. The following list describes these:

- *Residential and Business Energy Tax Credits.* The ETA provided income tax credits for homeowners and businesses that invested in a variety of energy conservation products (e.g., insulation and other energy-conserving components) and for solar and wind energy equipment installed in a principal home or a business. The business energy tax credits were 10% to 15% of the investment in conservation or alternative fuels technologies, such as synthetic fuels, solar, wind, geothermal, and biomass. These tax credits were also expanded as part of the WPT, but they generally expired (except for business use of solar and geothermal technologies) as scheduled either in 1982 or 1985. A 15% investment tax credit for business use of solar and geothermal energy, which was made permanent, is all that remains of these tax credits.

- *Tax Subsidies for Alcohol Fuels.* The ETA also introduced the excise tax exemption for gasohol, recently at 5.2¢ per gallon out of a gasoline tax of 18.4¢/gal. Subsequent legislation extended the exemption and converted it into an immediate tax credit (currently at 51¢/gallon of *ethanol*).

- *Percentage Depletion for Geothermal*. The ETA made geothermal deposits eligible for the percentage depletion allowance, at the rate of 22%. Currently the rate is 15%.

- *§29 Tax Credit for Unconventional Fuels.* The 1980 WPT included a $3.00 (in 1979 dollars) production tax credit to stimulate the supply of selected unconventional fuels: oil from shale or tar sands, gas produced from geo-pressurized brine, Devonian shale, tight formations, or coalbed methane, gas from biomass, and synthetic fuels from coal. In current dollars this credit, which is still in effect for certain types of fuels, was $6.56 per barrel of liquid fuels and about $1.16 per thousand cubic feet (mcf) of gas in 2004.

- *Tax-Exempt Interest on Industrial Development Bonds.* The WPT made facilities for producing fuels from solid waste exempt from federal taxation of interest on industrial development bonds (IDBs). This exemption was for the benefit of the development of alcohol fuels produced from biomass, for solid-waste-to-energy facilities, for hydroelectric facilities, and for facilities for producing renewable energy. IDBs, which provide significant benefits to state and local electric utilities (public power), had become a popular source of financing for renewable energy projects.

Some of these incentives — for example, the residential energy tax credits — have since expired, but others remain and still new ones have been introduced, such as the §45 renewable electricity tax credit, which was introduced in 1992 and expanded under the American Jobs Creation Act of 2004 (P.L. 108-357). This approach toward energy tax policy — subsidizing a plethora of different forms of energy (both conventional and renewable) and providing incentives for diverse energy conservation (efficiency) technologies in as many sectors as possible — has been the paradigm followed by policymakers since the 1970s. A significant increase in nontax interventions in the energy markets — laws and regulations, such as the Corporate Average Fuel Economy (CAFÉ) standards to reduce transportation fuel use, and other interventions through the budget and the credit markets — has also been a significant feature of energy policy since the 1970s. This included some of the most extensive energy legislation ever enacted.

Energy Tax Policy in the 1980s: The "Free-Market Approach"

The Reagan Administration opposed using the tax law to promote oil and gas development, energy conservation, or the supply of alternative fuels. The idea was to have a more neutral and less distortionary energy tax policy, which economic theory predicts would make energy markets work more efficiently and generate benefits to the general economy. The Reagan Administration believed that the

responsibility for commercializing conservation and alternative energy technologies rested with the private sector and that high oil prices — real oil prices (corrected for inflation) were at historically high levels in 1981 and 1982 — would be ample encouragement for the development of alternative energy resources. High oil prices in themselves create conservation incentives and stimulate oil and gas production.

President Reagan's free-market views were well known prior to his election. During the 1980 presidential campaign, he proposed repealing the WPT, deregulating oil and natural gas prices, and minimizing government intervention in the energy markets. The Reagan Administration's energy tax policy was professed more formally in several energy and tax policy studies, including its 1981 National Energy Policy Plan and the 1983 update to this plan; it culminated in a 1984 Treasury study on general tax reform, which also proposed fundamental reforms of federal energy tax policy. In terms of actual legislation, many of the Reagan Administration's objectives were realized, although as discussed below there were unintended effects.

In 1982, the business energy tax credits on most types of nonrenewable technologies — those enacted under the ETA of 1978 — were allowed to expire as scheduled; other business credits and the residential energy tax credits were allowed to expire at the end of 1985, also as scheduled. Only the tax credits for business solar, geothermal, ocean thermal, and biomass technologies were extended. As mentioned above, today the tax credit for business investment in solar and geothermal technologies, which has since been reduced to 10%, is all that remains of these tax credits. A final accomplishment was the repeal of the WPT, but not until 1988, the end of Reagan's second term. The Reagan Administration's other energy tax policy proposals, however, were not adopted. The tax incentives for oil and gas were not eliminated, although they were pared back as part of the Tax Reform Act (TRA) of 1986.

Although the Reagan Administration's objective was to create a free-market energy policy, significant liberalization of the depreciation system and reduction in marginal tax rates — both the result of the Economic Recovery Tax Act of 1981 (ERTA, P.L. 97-34) — combined with the regular investment tax credit and the business energy investment tax credits, resulted in negative effective tax rates for many investments, including alternative energy investments, such as solar and synthetic fuels. Also, the retention of percentage depletion and expensing of IDCs (even at the reduced rates) rendered oil and gas investments still favored relative to investments in general.

Energy Tax Policy After 1988

After the Reagan Administration, several major energy and non-energy laws were enacted that amended the energy tax laws in several ways, some major:

- *Revenue Provisions of the Omnibus Reconciliation Act of 1990.* President George H.W. Bush's first major tax law included numerous energy tax incentives: (1) for conservation (and deficit reduction), the law increased the gasoline tax by 5¢/gallon and doubled the gas-guzzler tax; (2) for oil and gas, the law introduced a 10% tax credit for enhanced oil recovery expenditures, liberalized

some of the restrictions on the percentage depletion allowance, and reduced the impact of the alternative minimum tax on oil and gas investments; and (3) for alternative fuels, the law expanded the §29 tax credit for unconventional fuels and introduced the tax credit for small producers of ethanol used as a motor fuel.

- *Energy Policy Act of 1992 (P.L. 102-486).* This broad energy measure introduced the §45 tax credit, at 1.5¢ per kilowatt hour, for electricity generated from wind and "closed-loop" biomass systems. (Poultry litter was added later.) For new facilities, this tax credit expired at the end of 2001 and again in 2003 but has been retroactively extended by recent tax legislation (as discussed below). In addition, the 1992 law (1) added an income tax deduction for the costs, up to $2,000, of clean-fuel powered vehicles; (2) liberalized the alcohol fuels tax exemption; (3) expanded the §29 production tax credit for nonconventional energy resources; and (4) liberalized the tax breaks for oil and gas.

- *Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66).* President Clinton proposed a differential Btu tax on fossil fuels (a broadly based general tax primarily on oil, gas, and coal based on the British thermal units of heat output), which was dropped in favor of a broadly applied 4.3¢/gallon increase in the excise taxes on motor fuels, with revenues allocated for deficit reduction rather than the various trust funds.

- *Taxpayer Relief Act of 1997 (P.L. 105-34).* This law included a variety of excise tax provisions for motor fuels, of which some involved tax reductions on alternative transportation fuels, and some involved increases, such as on kerosene, which on balance further tilted energy tax policy toward alternative fuels.

- *Tax Relief and Extension Act.* Enacted as Title V of the Ticket to Work and Work Incentives Improvement Act of 1999 (P.L. 106-170), it extended and liberalized the 1.5¢/kWh renewable electricity production tax credit, and renewed the suspension of the net income limit on the percentage depletion allowance for marginal oil and gas wells.

As this list suggests, the post-Reagan energy tax policy returned more to the interventionist course established during the 1970s and primarily was directed at energy conservation and alternative fuels, mostly for the purpose of reducing oil import dependence and enhancing energy security. However, there is an environmental twist to energy tax policy during this period, particularly in the Clinton years. Fiscal concerns, which for most of that period created a perennial search for more revenues to reduce budget deficits, have also driven energy tax policy proposals during the post-Reagan era. This is underscored by proposals, which have not been enacted, to impose broad-based energy taxes such as the Btu tax or the carbon tax to mitigate greenhouse gas emissions.

Another interesting feature of the post-Reagan energy tax policy is that while the primary focus continues to be energy conservation and alternative fuels, no energy tax legislation has been enacted during this period that does not also include some, relatively minor, tax relief for the oil and gas industry, either in the form of new tax incentives or liberalization of existing tax breaks (or both).

Energy Tax Incentives in Recent Comprehensive Energy Legislation

Several negative energy market developments since about 1998, characterized by some as an "energy crisis," have led to congressional action on comprehensive energy proposals, which included numerous energy tax incentives.

Brief History of Recent Comprehensive Energy Policy Proposals

Although the primary rationale for comprehensive energy legislation has historically been spiking petroleum prices, and to a lesser extent spiking natural gas and electricity prices, the origin of bills introduced in the late 1990s was the very low crude oil prices of that period. Domestic crude oil prices reached a low of just over $10 per barrel in the winter of 1998-1999, among the lowest crude oil prices in history after correcting for inflation. From 1986 to 1999, oil prices averaged about $17 per barrel, fluctuating between $12 and $20 per barrel. These low oil prices hurt oil producers, benefitted oil refiners, and encouraged consumption. They also served as a disincentive to conservation and investment in energy efficiency technologies and discouraged production of alternative fuels and renewable technologies. To address the low oil prices, there were many tax bills in the first session of the 106th Congress (1999) focused on production tax credits for marginal or stripper wells, but they also included carryback provisions for net operating losses, and other fossil fuels supply provisions.

By summer 1999, crude oil prices rose to about $20 per barrel, and peaked at more than $30 per barrel by summer 2000, causing higher gasoline, diesel, and heating oil prices. To address the effects of rising crude oil prices, legislative proposals again focused on production tax credits and other supply incentives. The rationale was not tax relief for a depressed industry but tax incentives to increase output, reduce prices, and provide price relief to consumers.

In addition to higher petroleum prices there were forces — some of which were understood (factors such as environmental regulations and pipeline breaks) and others that are still are not so clearly understood — that caused the prices of refined petroleum products to spike. In response, there were proposals in 2000 to either temporarily reduce or eliminate the federal excise tax on gasoline, diesel, and other special motor fuels. The proposals aimed to help consumers (including truckers) cushion the financial effect of the price spikes. The Midwest gasoline price spike in summer 2000 kept interest in these excise tax moratoria alive and generated interest in proposals for a windfall profit tax on oil companies, which, by then, were earning substantial profits from high prices.

Despite numerous bills to address these issues, no major energy tax bill was enacted in the 106th Congress. However, some minor amendments to energy tax provisions were enacted as part of nonenergy tax bills. This includes Title V of the Ticket to Work and Work Incentives Improvement Act of 1999 (P.L. 106-170). Also, the 106th Congress did enact a package of $500 million in loan guarantees for small independent oil and gas producers (P.L. 106-51).

Energy Tax Action in the 107th Congress

In early 2001, the 107th Congress faced a combination of fluctuating oil prices, an electricity crisis in California, and spiking natural gas prices. The gas prices had increased steadily in 2000 and reached $9 per thousand cubic feet (mcf) at the outset of the 107th Congress. At one point, spot market prices reached about $30 per mcf, the energy equivalent of $175 per barrel of oil. The combination of energy problems had developed into an "energy crisis," which prompted congressional action on a comprehensive energy policy bill — the first since 1992 — that included a significant expansion of energy tax incentives and subsidies and other energy policy measures.

In 2002, the House and Senate approved two distinct versions of an omnibus energy bill, H.R. 4. While there were substantial differences in the nontax provisions of the bill, the energy tax measures also differed significantly. The House bill proposed larger energy tax cuts, with some energy tax increases. It would have reduced energy taxes by about $36.5 billion over 10 years, in contrast to the Senate bill, which cut about $18.3 billion over 10 years, including about $5.1 billion in tax credits over 10 years for two mandates: a renewable energy portfolio standard ($0.3 billion) and a renewable fuel standard ($4.8 billion). The House version emphasized conventional fuels supply, including capital investment incentives to stimulate production and distribution of oil, natural gas, and electricity. This focus assumed that recent energy problems were due mainly to supply and capacity shortages driven by economic growth and low energy prices. In comparison, the Senate bill would have provided a much smaller amount of tax incentives for fossil fuels and nuclear power and somewhat fewer incentives for energy efficiency, but provided more incentives for alternative and renewable fuels. The conference committee on H.R. 4 could not resolve differences, so the bills were dropped on November 13, 2002.

Energy Tax Action in the 108th Congress

On the House side, on April 3, 2003, the Ways and Means Committee (WMC) voted 24-12 for an energy tax incentives bill (H.R. 1531) that was incorporated into H.R. 6 and approved by the House on April 11, 2003, by a vote of 247-175. The House version of H.R. 6 provided about $17.1 billion of energy tax incentives and included $83 million of non-energy tax increases, or offsets. This bill was a substantially scaled-down version of the House energy tax bill, H.R. 2511 (107th Congress), which was incorporated into H.R. 4, the House energy bill of the 107th Congress that never became law. After returning from the August 2003 recess, a House and Senate conference committee negotiated differences among provisions in three energy policy bills: the House and Senate versions of H.R. 6, and a substitute to the Senate Finance Committee (SFC) bill — a modified (or amended) version of

S. 1149 substituted for Senate H.R. 6 in conference as S.Amdt. 1424 and S.Amdt. 1431.

On November 14, 2003, House and Senate conferees reconciled the few remaining differences over the two conference versions of H.R. 6, which primarily centered on several energy tax issues — ethanol tax subsidies, the §29 unconventional fuels tax credit, tax incentives for nuclear power, and clean coal. On November 18, 2003, the House approved, by a fairly wide margin (246-180), the conference report containing about $23.5 billion of energy tax incentives. However, the proposed ethanol mandate would further reduce energy tax receipts — the 10-year revenue loss was projected to be around $26 billion. On November 24, Senate Republicans put aside attempts to enact H.R. 6. A number of uneasy alliances pieced together to bridge contentious divides over regional issues as varied as electricity, fuel additives (MTBE), and natural gas subsidies, failed to secure the necessary 60 votes to overcome a Democratic filibuster before Congress's adjournment for the holiday season. This represented the third attempt to pass comprehensive energy legislation, a top priority for many Republicans in Congress and for President Bush.

Senator Domenici introduced a smaller energy bill as S. 2095 on February 12, 2004. S. 2095 included a slightly modified version of the amended energy tax bill S. 1149; the tax provisions of S. 2095 were added to the export tax repeal bill S. 1637, on April 5, 2004. The Senate approved S. 1637, with the energy tax measures, on May 11. H.R. 4520, the House version of the export tax repeal legislation, did not contain energy tax measures; they were incorporated into H.R. 6.

Some energy tax incentives were enacted on October 4, 2004, as part of the Working Families Tax Relief Act of 2004 (P.L. 108-311), a $146 billion package of middle class and business tax breaks. This legislation, which was signed into law on October 4, 2004, retroactively extended four energy tax subsidies: the §45 renewable tax credit, suspension of the 100% net income limitation for the oil and gas percentage depletion allowance, the $4,000 tax credit for electric vehicles, and the deduction for clean fuel vehicles (which ranges from $2,000 to $50,000). The §45 tax credit and the suspension of the 100% net income limitation had each expired on January 1, 2004; they were retroactively extended through December 31, 2005. The electric vehicle credit and the clean-vehicle income tax deduction were being phased out gradually beginning on January 1, 2004. P.L. 108-311 arrested the phase-down — providing 100% of the tax breaks — through 2005, but resumed it beginning on January 1, 2006, when only 25% of the tax break was available. (For more information, see CRS Report RL32265, *Expired and Expiring Energy Tax Incentives*, by Salvatore Lazzari.)

The American Jobs Creation Act of 2004 (P.L. 108-357), enacted on October 22, 2005, included about $5 billion in energy tax incentives. This bill, commonly referred to as the "FSC-ETI" or "jobs" bill, contained several energy-related tax breaks:

- Expansion of the renewable electricity credit to open-loop biomass, geothermal, solar, small irrigation power, and municipal solid waste facilities, and introduction of a $4.375/ton production tax credit for refined coal — not for the electricity produced from the coal. (The

refined coal tax credit was originally part of proposed expansion of the §29 tax credit in the 2003 and 2004 proposed comprehensive energy policy bills, which already benefitted "synfuels" from coal. When comprehensive energy policy legislation failed, the refined coal credit was added to the "jobs" bill, which inserted the provision into the renewable electricity section of the tax code).

- Creation of a new tax credit for oil and gas from marginal (small) wells, triggered when oil prices are below $18/barrel ($2/mcf for natural gas).

- Liberalization of the tax treatment of electric cooperatives under a restructured electricity market.

- Reduction of the depreciation recovery period for certain Alaska pipelines to 7 years (15 years under prior law).

- Extension of the 15% enhanced oil recovery credit to Alaska gas processing facilities.

- Reform of the tax subsidies for fuel ethanol — basically replacing the excise tax exemption with an equivalent immediate tax credit — and expansion of the credit to include biodiesel (at a higher rate for biodiesel made from virgin oils).

- Repeal of the general fund component (4.3¢/gal.) excise tax on diesel fuel used in trains and barges.

- A new $2.10/barrel tax credit for production of low-sulfur diesel fuel and "expensing" of (basically, faster depreciation deductions for) the capital costs to produce such fuels.

The Energy Policy Act of 2005 (P.L. 109-58)

On June 28, 2005, the Senate approved by an 85-12 vote a broadly based energy bill (H.R. 6) with an 11-year, $18.6 billion package of energy tax breaks tilted toward renewable energy resources and conservation. Joint Committee on Taxation figures released on June 28 show that the bill included about $0.2 billion in non-energy tax cuts and more than $4.7 billion in revenue offsets, meaning the bill had a total tax cut of $18.8 billion over 11 years, offset by the $4.7 billion in tax increases. The House energy bill, which included energy tax incentives totaling about $8.1 billion over 11 years, and no tax increases, was approved in April. This bill was weighted almost entirely toward fossil fuels and electricity supply. On July 27, 2005, the conference committee on H.R. 6 reached agreement on $11.1 billion of energy tax incentives, including $3 billion in tax increases (both energy and non-energy). The distribution of the cuts by type of fuel for each of the three versions of H.R. 6 is shown in **Table 1.**

One way to briefly compare the two measures is to compare revenue losses from the energy tax incentives alone and the percentage distribution by type of incentive

as a percent of the net energy tax cuts (i.e., the columns marked "%" divided by the dollar figures in row 11). The net revenue losses over an 11-year time frame from FY2005 to FY2015 were estimated by the Joint Committee on Taxation. The total revenue losses are reported in two ways. The absolute dollar value of tax cuts over 11 years and the percentage distribution of total revenue losses by type of incentive for each measure.

Table 1 shows that the conference report provided about $1.3 billion for energy efficiency and conservation, including a deduction for energy-efficient commercial property, fuel cells, and micro-turbines, and $4.5 billion in renewables incentives, including a two-year extension of the tax code §45 credit, renewable energy bonds, and business credits for solar. A $2.6 billion package of oil and gas incentives included seven-year depreciation for natural gas gathering lines, a refinery expensing provision, and a small refiner definition for refiner depletion. A nearly $3 billion coal package provided for an 84-month amortization for pollution control facilities and treatment of §29 as a general business credit. More than $3 billion in electricity incentives leaned more toward the House version, including provisions providing 15-year depreciation for transmission property, nuclear decommissioning provisions, and a nuclear electricity production tax credit. It also provided for the five-year carryback of net operating losses of certain electric utility companies. A Senate-passed tax credit to encourage the recycling of a variety of items, including paper, glass, plastics, and electronic products, was dropped from the final version of the energy bill (H.R. 6). Instead, conferees included a provision requiring the Treasury and Energy departments to conduct a study on recycling. The House approved the conference report on July 28, 2005; the Senate on June 28, 2005, one month later on July 28, 2005, clearing it for the President's signature on August 8 (P.L. 109-58).

Four revenue offsets were retained in the conference report: reinstatement of the Oil Spill Liability Trust Fund; extension of the Leaking Underground Storage Tank (LUST) trust fund rate, which would be expanded to all fuels; modification of the §197 amortization, and a small increase in the excise taxes on tires. The offsets total roughly $3 billion compared with nearly $5 billion in the Senate-approved H.R. 6. Because the oil spill liability tax and the Leaking Underground Storage Tank financing taxes are imposed on oil refineries, the oil and gas refinery and distribution sector (row 2 of **Table 1**) received a net tax increase of $1,769 ($2,857-$1,088).

Current Posture of Energy Tax Policy

The above background discussion of energy tax policy may be conveniently summarized in **Table 2**, which shows current energy tax provisions — both special (or targeted) energy tax subsidies and targeted energy taxes — and related revenue effects. A minus sign ("-") indicates revenue losses, which means that the provision is a tax subsidy or incentive, intended to increase the subsidized activity (energy conservation measures or the supply of some alternative and renewable fuel or technology); no minus sign means that the provision is a tax, which means that it should reduce supply of, or demand for, the taxed activity (either conventional fuel supply, energy demand, or the demand for energy-using technologies, such as cars).

Note that the table defines those special or targeted tax subsidies or incentives as those that are due to provisions in the tax law that apply only to that particular industry and not to others. Thus, for example, in the case of the oil and gas industry, the table excludes tax subsidies and incentives of current law that may apply generally to all businesses but that may also confer tax benefits to it. There are numerous such provisions in the tax code; a complete listing of them is beyond the scope of this report. However, the following example illustrates the point: The current system of depreciation allows the writeoff of equipment and structures somewhat faster than would be the case under both general accounting principles and economic theory; the Joint Committee on Taxation treats the excess of depreciation deductions over the alternative depreciation system as a tax subsidy (or "tax expenditure)." In FY2006, the JCT estimates that the aggregate revenue loss from this accelerated depreciation deduction (including the expensing under IRC §179) is $6.7 billion. A certain, but unknown, fraction of this revenue loss or tax benefits accrues to the domestic oil and gas industry, but separate estimates are unavailable. This point applies to all the industries reflected in **Table 2**.

Energy Tax Policy Outlook

After expanding energy tax incentives in the Energy Policy Act of 2005, the 109th Congress moved to rescind oil and gas incentives, and even to raise energy taxes on oil and gas, in response to the high energy prices and resulting record oil and gas industry profits. The Senate-passed reconciliation bill (S. 2020) would have raised taxes on major U.S. integrated oil companies by (1) denying amortization treatment of geological and geophysical expenditures (such expenditures would have to be depleted or depreciated over the life of the property), (2) disallowing a portion of the tax benefits from LIFO (last-in-first-out) inventory accounting, (3) denying such companies the tax credit for taxes paid to foreign countries, and (4) restricting the use of the §29 tax credit for unconventional fuels. Ultimately, only a negligible tax increase on major integrated oil companies was enacted when, on May 17, 2006, the President signed a $70 billion tax reconciliation bill (P.L. 109-222). Under that bill, geological and geophysical (G&G) costs undertaken in exploring for oil and gas by major integrated oil companies are amortized over five years rather than two years. The two-year period was enacted under the Energy Policy Act of 2005. Prior to that, G&G costs were capitalized, which is consistent with economic and accounting theory. The 2006 change increases taxes on major integrated oil companies by an estimated $189 million over 10 years, effectively rescinding about 20% of the nearly $1 billion 11-year tax cut under the Energy Policy Act of 2005.

Recent Congressional Bills

At this writing, any major legislative action on energy tax policy appears to be on hold, preempted by other more pressing legislative concerns. Yet, high gasoline prices (over $3.00/gallon) and continued high crude oil prices (over $70/barrel) are spurring interest in energy tax legislation. While it is unclear what the parameters of any possible legislation are, extensions of provisions in the 2005 energy legislation and proposals laid out by President Bush in his most recent State of the Union speech are likely to play a role. Several recent bills give an indication of the types of energy

tax proposals that are on the horizon. For example, Representative Hulshof, along with a bipartisan group of his fellow Ways and Means Committee members, introduced a bill on June 20, the Renewable Fuels and Energy Independence Promotion Act of 2006 (H.R. 5650), that would make permanent the tax credits for alcohol and biodiesel used as fuel under tax code §§ 40 and 40A. Representative Ron Lewis introduced a bill (H.R. 5653) the same day that would promote investment in energy independence through coal-to-liquid fuels technology, biomass, and oil shale. The bill would provide, among other things,

- a credit for investment in coal-to-liquid fuels projects and temporary expensing for equipment used in those projects,
- an expansion and extension of the alternative fuel credit, and
- expansion of expensing of oil and alternative fuel refineries.

Another Ways and Means member, Representative Earl Pomeroy, introduced on May 9, 2006, a companion bill (H.R. 5331) to Senator Kent Conrad's Breaking Our Long-Term Dependence (BOLD) Energy Act of 2006 (S. 2571), introduced on April 6, 2006. Provisions in both bills include

- an extension of the biodiesel and ethanol tax credit,
- enhancement of the tax credit for hybrid cars and extension to vehicles that have above-average fuel economy,
- a 35% tax credit for retiree health-care cost relief to automakers who include alternative fuel technologies in their vehicles,
- an increased enhanced oil recovery tax credit of 20% for new or expanded domestic drilling projects using carbon dioxide to recover oil from aging wells,
- extension of the renewable energy tax credit for five years, and
- easier state use of tax-exempt bonds to finance improvement of the electricity grid.

Senator Grassley introduced an energy tax bill (S. 2401) on March 13, 2006, which extends the current expiration deadline of current energy tax provisions, many of which were enacted in the Energy Policy Act of 2005. The bill would extend the §45 credit, clean renewable energy bonds, clean coal tax credits, refinery expensing, the commercial building deduction, energy-efficient new home credits, the residential solar tax credit, the fuel cell and micro turbine tax credit, the business solar tax credit, the biodiesel excise tax credit, and the credit for refueling property. Other provisions would expand tax credits for investments in clean coal facilities and allow 50% expensing of the cost of refinery investments that increase the capacity of an existing refinery by at least 5% through 2012, and for refineries that increase the throughput of qualified fuels by at least 25% permanently. Senators Grassley and Baucus also sponsored a bill (S. 2345) that would increase tax incentives for business owners to buy fuel-efficient alternative energy vehicles, aligning them with benefits currently available for the purchase of sport utility vehicles.

Finally, the upcoming congressional elections (and to some extend the 2008 presidential elections) are already producing ideas and proposals to use the tax code to achieve "energy independence," and address the problems associated with global climate change.

For Additional Reading

U.S. Congress, Senate Budget Committee, *Tax Expenditures: Compendium of Background Material on Individual Provision*, Committee Print, December 2004, 108th Cong., 2nd sess.

U.S. Congress, Joint Tax Committee, *Description And Technical Explanation of the Conference Agreement of H.R. 6, Title XIII, "Energy Tax Policy Tax Incentives Act of 2005,"* July 27, 2005.

CRS Report RS21935, *The Black Lung Excise Tax on Coal*, by Salvatore Lazzari.

CRS Report RL30406, *Energy Tax Policy: An Economic Analysis*, by Salvatore Lazzari.

CRS Report RS22322, *Taxes and Fiscal Year 2006 Reconciliation: A Brief Summary*, by David L. Brumbaugh.

CRS Report RS22344, *The Gulf Opportunity Zone Act of 2005*, by Erika Lunder.

CRS Report RL33302, *Energy Policy Act of 2005: Summary and Analysis of Enacted Provisions*, by Mark Holt and Carol Glover.

Table 1. Comparison of Energy Tax Provisions the House, Senate, and Enacted Versions of H.R. 6 (P.L.109-58): 11-Year Estimated Revenue Loss by Type of Incentive

(in millions of dollars; percentage of total revenue losses)

	House H.R. 6		Senate H.R. 6		P.L. 109-58	
INCENTIVES FOR FOSSIL FUELS SUPPLY						
	$	%	$	%	$	%
(1) Oil & Gas Production	-1,525	18.9%	-1,416	7.6%	-1,545	10.6%
(2) Oil & Gas Refining and Distribution	-1,663	20.6%	-1,399	7.5%	-1,088	7.5%
(3) Coal	-1,490	18.4%	-3,003	16.2%	-2,948	20.3%
(4) Subtotal	-4,678	57.8%	-5,818	31.3%	-5,581	38.6%
ELECTRICITY RESTRUCTURING PROVISIONS						
(5) Nuclear	-1,313	16.2%	-278	1.5%	-1,571	10.9%
(6) Other	-1,529	18.9%	-475	2.6%	-1,549	10.7%
(7) Subtotal	-2,842	35.1%	-753	4.1%	-3,120	21.6%
INCENTIVES FOR EFFICIENCY, RENEWABLES, AND ALTERNATIVE FUELS						
(8) Energy Efficiency	-570	7.0%	-3,987	21.4%	-1,260	8.7%
(9) Renewable Energy & Alternative Fuels	0	0%	-8,031	43.2%	-4,500	31.1%
(10) Subtotal	-570	7.0%	-12,018	64.6%	-5,760	39.8%
(11) Net Energy Tax Cuts	-8,010	100%	-18,589	100%	-14,461	100.0%
(12) Non Energy Tax Cuts[a]	0		-213		-92	
(13) Total Energy and Non-Energy Tax Cuts	0		-18,802		-14,553	
(14) Energy Tax Increases[b]	0		0		+2,857	
(15) Other Tax Increases			+ 4,705		171	
(15) NET TAX CUTS	-8,010		-14,055		-11,525	

Source: CRS estimates based on Joint Tax Committee reports.

a. The conference report includes a provision to expand R&D for all energy activities. This provision is listed as a nonenergy tax cut to simplify the table.

b. Energy tax increases comprise the oil spill liability tax and the Leaking Underground Storage Tank financing rate, both of which are imposed on oil refineries. If these taxes are subtracted from the tax subsidies (row 2), the oil and gas refinery and distribution sector suffered a net tax increase of $1,769 ($2,857-$1,088).

Table 2. Current Energy Tax Incentives and Taxes: Estimated Revenue Effects FY2006

(in millions of dollars)

Category	Provision	Major Limitations	Revenue Effects FY2006
CONVENTIONAL FOSSIL FUELS SUPPLY (bpd = barrels per day; < indicates less than)			
Targeted Tax Subsidies			
disposition of electricity transmission property to implement FERC policy	capital gain recognized evenly over 8 years	proceeds must be reinvested in other electricity generating assets	- 600
% depletion — oil, gas, and coal	15% of sales (higher for marginal wells); 10% for coal	only for independents, up to 1,000 or equiv. bpd	- 1,100
expensing of intangible drilling costs (IDCs) and amortization of exploration and development costs — oil/gas & other fuels	100% deductible IDCs in first year/ 2 year amortization of geological and geophysical costs	corporations expense only 70% of IDCs	- 1,100 [a]
expensing of refinery investments	deduction of 50% of the cost of qualified refinery property, in the taxable year in which the refinery is placed in service	must increase the capacity of an existing refinery by 5%; remaining 50% is depreciated; must be placed in service before January 1, 2012	- 26
Tax Credits for Enhanced Oil Recovery Costs (EOR)	IRC §43 provides for a 15% income tax credit for the costs of recovering domestic oil by qualified "enhanced-oil-recovery" (EOR) methods, to extract oil that is too viscous to be extracted by conventional primary and secondary water-flooding techniques.	The EOR credit is non refundable, and is allowable provided that the average wellhead price of crude oil (using West Texas Intermediate as the reference), in the year before credit is claimed, is below the statutorily established threshold price of $28 (as adjusted for inflation since 1990), in the year the credit is claimed. With average wellhead oil prices for 2005 (about $65) well above the reference price (about $38) the EOR credit was not available.	0

Category	Provision	Major Limitations	Revenue Effects FY2006
Marginal Production Tax Credit	A $3 tax credit is provided per barrel of oil ($0.50 per thousand cubic feet (mcf)) of gas from marginal wells, and for heavy oil.	The credit phases out as oil prices rise from $15 to $18 per barrel (and as gas prices rise from $1.67 to $2.00/thousand cubic feet), adjusted for inflation. The credit is limited to 25 bpd or equivalent amount of gas and to 1,095 barrels per year or equivalent. Credit may be carried back up to 5 years. At 2005 oil and gas prices, the marginal production tax credit was not available.	0
nuclear decommissioning	liberalizes tax deductible contributions to a fund in advance of actual decommissioning	in general, the IRS sets limits on the annual amounts made to a nuclear decommissioning fund	- 120
electric utilities	allows net-operating losses (NOLs) to be carried back 5 years, as compared with 2 years for all other industries	only 20% of the NOLs in 2003-2005 qualify	-72
incentives for small refiners to comply with EPA sulfur regulations	$2.10 credit per barrel of low-sulfur diesel, plus expensing of 75% of capital costs	credit limited to 25% of capital costs; expensing phases out for refining capacity of 155,000-205,000 barrels per day.	- < 50
credit for clean-coal technologies	20% for integrated gasification combined cycle (IGCC) systems; 15% for other advanced coal technologies	each system has maximum aggregate dollar limits	- 26
Targeted Taxes			
black-lung coal excise taxes and abandoned mineland reclamation (AML) fees	$1.25/ton for underground coal ($0.90 for surface coal)	coal tax not to exceed 4.4% of sales price (2.2% for the AML fee)	789
oil spill liability trust fund excise tax	$0.05/barrel tax on every barrel of crude oil refined	moneys are allocated into a fund for cleaning up oil spills	150
ALTERNATIVE, UNCONVENTIONAL, AND RENEWABLE FUELS			
Targeted Tax Subsidies			
§29, production tax credit	$6.40/bar. of oil or ($1.13/mcf of gas)	biogas, coal synfuels, coalbed methane, etc.	- 2,700

Category	Provision	Major Limitations	Revenue Effects FY2006
credits for fuel ethanol	$0.51 blender's credit, plus $0.10/gal small producer credit	for biomass ethanol only (e.g., from corn)	- 1,890
tax credit for clean-fuel refueling property	$30,000 tax credit for alternative fuel equipment	per location, per taxpayer (replaces a deduction)	- < 50
§45 credit for renewable electricity	1.8¢/kWh. (0.9¢ in some cases; $4.375/ton of refined coal	wind, closed-loop biomass, poultry waste, solar, geothermal, etc.	- 2,000
alternative fuel motor vehicle (AFV) tax credits	$400-$40,000 credit for each fuel cell, hybrid, lean burn and other AFVs	tax credit is function of vehicle weight, fuel economy, and lifetime fuel savings	- 283
exclusion of interest on State & Local bonds	interest income exempt from tax	for hydroelectric or biomass facilities used to produce electricity	- 100
credits for biodiesel	$0.50/gal. of recycled biodiesel; $1.00/gal. for virgin biodiesel	sold at retail or used in a trade or business; applies to oils from vegetables or animal fats	- 122
credit for solar & geothermal tech.	10% investment tax credit for businesses	utilities excluded	- < 50
ENERGY CONSERVATION			
Targeted Subsidies			
mass transit subsidies	exclusion of $105/month		- 192
manufacturer's credit for energy efficient appliances	max credit is $50 for dishwashers, $175 for refrigerators, and $200 for clothes washers	amount of credit depends on energy efficiency, energy savings, and varies by year; total annual credit is also limited	- 117
deduction for the cost of energy efficient property in commercial buildings	tax deduction of cost of envelope components, heating cooling systems, and lighting	total deductions cannot exceed $1.80/sq.ft.	- 81
credit for energy efficiency improvements to existing homes	10% tax credit ($500/home) on up to $5,000 of costs; $50-$300 credit for other items	max credit on windows is $200	- 55
Targeted Taxes			
fuels taxes (FY2003)[b]	18.4¢/gal. on gasoline	4.4¢-24.4¢ for other fuels	39,078
gas-guzzler tax (FY2005)	$1,000-$7,700/ vehicle weighing 6,000 lbs. or less	trucks and SUVs are exempt	160

Category	Provision	Major Limitations	Revenue Effects FY2006
exclusion for utility conservation subsidies	subsidies not taxable as income	any energy conservation measure	< - 50

Source: Joint Tax Committee estimates and Internal Revenue Service data.

Notes: A negative sign indicates a tax subsidy or incentive; no negative sign indicates an energy tax. NA denotes not available.

a. The revenue loss estimate excludes the benefit of expensing costs of dry tracts and dry holes, which includes expensing some things that would otherwise be capitalized. This is a normal feature of the tax code but confers special benefits on an industry where the cost of finding producing wells includes spending money on a lot that turn out dry. This is probably more important than IDCs or percentage depletion.

b. This category includes revenue from excise taxes on tires, a heavy vehicle use tax, and retail sales tax on trucks and tractors, which also go into the Highway Trust Fund (HTF). No separate breakdown of revenue losses for fuels is available for FY2005-FY2009, but revenues from motor fuel taxes generally represent about 90% of the total HTF taxes.