

Issue Brief for Congress

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Energy Tax Policy

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CONTENTS

SUMMARY

MOST RECENT DEVELOPMENTS

BACKGROUND AND ANALYSIS

Introduction

Background

- Energy Tax Policy From 1918-1970: Promoting Oil and Gas

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

- Reagan's Free-Market Energy Tax Policy

- Energy Tax Policy After Reagan

Energy Tax Proposals in the 106th Congress

Energy Tax Action in the 107th Congress

- Bush Administration Proposals

- Job Creation and Worker Assistance Act (P.L. 107-147)

- Omnibus Energy Bills (H.R. 4)

 - Oil and Natural Gas Production

 - Oil and Natural Gas Refining and Distribution

 - Coal

 - Electricity Restructuring

 - Energy Efficiency

 - Renewable and Alternative Fuels

 - Miscellaneous Energy Tax Proposals

 - Renewable Energy Mandates

LEGISLATION

CONGRESSIONAL HEARINGS, REPORTS, AND DOCUMENTS

FOR ADDITIONAL READING

Energy Tax Policy

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 non-conventional 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 Due to the combined effects of the Economic Recovery Tax Act and the energy tax subsidies that had not been repealed, which together created negative effective tax rates in some cases, the actual energy tax policy differed from the stated policy.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. 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 is also being increasingly viewed as a tool for achieving environmental and fiscal objectives. The current energy tax structure is dominated by revenue loss for a long-standing gasoline tax. However, recent debates over energy tax policy for fuels and electricity cover a wide range of tax measures for fossil fuels, alternative fuels, renewable energy, and energy efficiency.

The Clinton Administration's energy tax

policy focused on reducing petroleum demand through incentives for energy efficiency, alternative fuels, and alternative-fueled vehicles. The Clinton policy also emphasized the environmental benefits of reducing greenhouse gases and global climate change.

The George W. Bush Administration had originally criticized energy tax measures as inconsistent with its free market philosophy. Nevertheless, President Bush issued a comprehensive energy policy in 2001, and a global climate change initiative in 2002, which include limited energy tax measures.

Omnibus energy legislation (H.R. 4), which would expand energy tax incentives significantly, was dropped by the conference committee. Both the Senate and House versions of H.R. 4 included energy tax measures for qualifying energy producers and consumers. In terms of revenue loss, the House bill would have cut energy taxes by \$36.5 billion over the ten-year period FY2002 - FY2011. In contrast, the Senate bill's ten-year projected revenue loss was about \$15.5 billion. If the effect of renewable energy mandates on the use of tax incentives was added, the Senate bill's tax cut total would have grown to \$20.6 billion. The House bill provided about \$18.5 billion more for fossil fuels, but the Senate bill provided \$2.0 billion more for non-fossil measures, and another \$5.1 billion more for tax incentives driven by the renewable energy mandates. The bills included tax measures for oil and gas production, oil and gas refining and distribution, coal production, electricity industry restructuring, energy efficiency, renewable and alternative fuels, and several miscellaneous items. Also, in 2002 certain energy tax provisions that had expired were extended retroactively as part of Job Creation and Worker Assistance Act (P.L. 107-147).

MOST RECENT DEVELOPMENTS

On November 13, 2002, the conference committee dropped its consideration of H.R. 4, the comprehensive energy bill, after eight sessions failed to reconcile major differences. Both the Senate and House versions of H.R. 4 included a package of energy tax cuts, primarily tax incentives (or subsidies) for qualifying energy producers and consumers. In terms of revenue loss, the House bill would have cut energy taxes by \$36.5 billion over the ten-year period FY2002 - FY2011. In contrast, the Senate bill's ten-year projected revenue loss was about \$15.5 billion. If the effect of renewable energy mandates on the use of tax incentives is added, the Senate bill's total grows to \$20.6 billion. The House bill provided about \$18.5 billion more for fossil fuels, but the Senate bill provided \$2.0 billion more for non-fossil energy measures, and another \$5.1 billion more for tax incentives driven by the renewable energy mandates. (For more details, see CRS Report RL31427, Omnibus Energy Legislation: H.R. 4 Side-by-side Comparison.) Some version of these energy tax provisions is expected to be incorporated into a new comprehensive energy bill, which is a top priority for the 108th Congress.

On March 9, President Bush signed the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147), a \$42 billion, ten-year tax cut that retroactively extends several energy tax provisions that had expired on December 31, 2001.

BACKGROUND AND ANALYSIS

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. Energy taxes and subsidies are intended to either correct a problem or distortion in the energy markets or to achieve some social, economic (efficiency, equity, or even macroeconomic), environmental, or fiscal objective.

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. 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, 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.

This issue brief discusses the history, current posture, and the outlook for federal energy tax policy. It also discusses recent energy tax proposals, focusing on the major energy tax provisions included in omnibus energy legislation (H.R. 4) that is now in conference. (For a general economic analysis of energy tax policy, see CRS Report RL30406, *Energy Tax Policy: An Economic Analysis*.)

Background

The history of federal energy tax policy can basically 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 1918-1970: 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).

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 percentage depletion allowance for oil and gas 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).

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 a progressively worsening fiscal picture – increasing federal budget deficits – and in view of the longstanding economic arguments against the special tax treatment for oil and gas. 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 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 the increased use of fiscal subsidies or incentives – special tax credits, deductions, exclusions etc.– to shift from oil and gas supply toward energy conservation and alternative energy sources.

Three broad actions through the tax code were taken 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 (for example, 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 on oil and gas (and later coal). Chief among these was the windfall profit tax (WPT) on oil first 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”).

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, which was 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 9.7¢ 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. (See CRS Issue Brief IB10011.)

The third broad action taken during the 1970s to implement the new and refocused energy tax policy was the introduction of numerous tax incentives for energy conservation, the development of alternative fuels (renewable and non-conventional 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 (ETA, P.L. 95-618), 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. President Clinton's FY2001 budget included a solar credit that is very similar to the 1978 residential energy tax credits. 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, currently at 5.3¢ per gallon (out of a gasoline tax of 18.4¢/gal.). Subsequent legislation extended the exemption and introduced the alcohol fuels "blenders" tax credits (which are in lieu of the exemption), and the 10¢/gal., small ethanol producers tax credit. The 1998 Transportation Equity Act (P.L. 105-178) extended the exemption, which was scheduled to expire, but at reduced rates. (For more information see CRS Report 98-435 E, *Alcohol Fuels Tax Incentives*.)
- ! *Gas Guzzler Tax.* The ETA created a federal "gas guzzler" excise tax on the sale of automobiles with relatively low fuel economy ratings. The tax 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. This tax is still in effect.
- ! *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 either geo-pressurized brine, Devonian shale, tight formations, and coalbed methane, gas from biomass, and synthetic fuels from coal. Adjusted for inflation, this credit, which is still in effect for wells, mines, or plants placed in service by June 30, 1998 (for coal and biomass facilities) and December 31, 1991 (for all other facilities and wells), was over \$6.00 per barrel of

liquid fuels and about \$1.00 per thousand cubic feet (mcf) of gas in 1999. The credit for tight sands gas has been fixed at the 1979 rate of \$0.50 per mcf. (For more information, see CRS Report 97-679 E, *Economic Analysis of the Section 29 Tax Credit for Unconventional Fuels*.)

- ! *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.

(During the 1970s there was also a significant increase in the number of energy laws and regulations, such as the Corporate Average Fuel Economy (CAFE) standards to reduce transportation fuel use, and other interventions through the budget and the credit markets. This included some of the most extensive energy legislation ever enacted. These non-tax policy measures are not discussed here.)

Reagan's Free-Market Energy Tax Policy

The Reagan era, the period from 1981-1989, witnessed the first attempt to create a more free-market energy tax policy by deregulating the energy markets, and by both reducing taxes and eliminating tax subsidies, both for conservation, alternative fuels, and oil and gas.

President Reagan's free-market views were well known prior to his election. During the 1980 presidential campaign, he proposed repeal of the WPT, the deregulation of oil and natural gas, and the minimization of government intervention, including reduced spending and taxes. The Reagan Administration opposed using the tax law to promote either 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 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.

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 non-renewable 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. And 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 the Reagan 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:

- ! 'Expensing' was retained, but there were cutbacks for integrated oil producers (who would be allowed to expense only 70% of such costs and amortize – deduct evenly over time – the remaining 30%) and other reductions;
- ! Percentage depletion would not apply to lease bonuses, advance royalties, or any other payments made without regard to actual production from the property. This amendment applied to geothermal wells as well as oil and gas properties. Another section of TRA denied capital gains treatment on certain dispositions of interest in oil and gas property (and to geothermal property);
- ! The TRA replaced the old minimum taxes with a new alternative minimum tax that placed limits on the tax benefits to oil/gas producers from the expensing of IDCs and the percentage depletion allowance. (Taxpayers must compute both the standard income tax and the alternative minimum tax imposed on a variety of tax preferences or subsidies, and pay the larger of the two.) However, in an effort to mitigate any burdensome effects of this new tax, only the excess of the deduction above 65% of net income was to be treated as a preference item;
- ! Investments in oil and gas properties were exempted from the passive loss limitation rules that were intended to curb tax shelter investments – a working interest in an oil and gas property was not treated as a passive activity. Thus any losses and credits derived from oil and gas investment activity could be used as a tax shelter to offset the taxpayer's other income without limitations under the passive loss rules.

While 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. (See, for instance: CRS Report 84-85 E. *Effective Tax Rates on Solar/Wind and Synthetic Fuels as Compared to Conventional Energy Resources*.) 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. Other energy tax policy developments during the Reagan era were as follows:

- ! The Deficit Reduction Act of 1984 (P.L. 98-369) tinkered with several energy tax provisions including the WPT and percentage depletion. Also, the 1984 tax law extended several of the tax incentives for alcohol fuels: (1) the tax exemption for alcohol fuels mixtures was raised from 5¢ to 6¢; (2) the law retained the prior 9¢-per-gallon exemption for neat alcohol fuels, i.e., those that are at least 85% alcohol, derived from alternative substances, but it provided for a new exemption of 4.5¢ per gallon for alcohol fuels derived from natural gas; (3) the alcohol “blenders” credit was raised from 50 cents to 60 cents per gallon; and (4) the duty on alcohol imported for use as a fuel was increased from 50 cents to 60 cents per gallon.
- ! In 1986 two environmental excise taxes were enacted on oil: 1) under the Superfund Amendments and Reauthorization Act of 1986 (P.L. 99-499), an increase in the Superfund oil tax from 0.79¢ to 8.2¢-per-barrel on domestic oil received and to 11.7¢ per barrel on imported petroleum. This tax differential violated the General Agreement on Tariffs and Trade (GATT), and the Steel Trade Liberalization Program Implementation Act of 1989 (P.L. 101-221) made the rates uniform at 9.7¢ per barrel; and 2) under the Omnibus Budget Reconciliation Act of 1986 (P.L. 99-510), imposition of the Oil Spill Liability Trust Fund excise tax at 1.3¢ per barrel, which was subsequently raised to 5.0¢/barrel. Both these taxes expired at the end of 1995.
- ! In addition, the TRA of 1986 reduced the excise tax exemption for “neat” alcohol fuels, from 9¢ per gallon to 6¢ per gallon. It also permitted alcohol imported from certain Caribbean countries to enter free of the 60¢-per-gallon duty. The TRA also repealed the tax-exempt financing provision for alcohol-producing facilities and for certain steam-generating facilities.

Energy Tax Policy After Reagan

After the Reagan Revolution, 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 Herbert 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. This tax credit expired at the end of 2001 for new facilities.) 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 non-conventional energy resources; 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 includes 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 (Title V of P.L. 106-170)*. Enacted as part of the Ticket to Work and Work Incentives Improvement Act of 1999 (P.L. 106-170), this Act 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 more recent years, as the discussion of President Clinton's proposals will demonstrate. 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).

Table 2 on page 16 summarizes current energy tax provisions 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 the demand

for, the taxed activity (either conventional fuel supply, energy demand, or the demand for energy-using technologies, such as cars).

Energy Tax Proposals in the 106th Congress

Energy price volatility over the past few years has led to congressional action on energy tax policy. This action was prompted by energy market problems which some had characterized as an “energy crisis.”

First, there have been wide fluctuations in crude oil prices. 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 1986-1999 oil prices averaged about \$17 per barrel, fluctuating from 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 high gasoline, diesel, and heating oil prices. To address these effects of high 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 high 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 these 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. (For an analysis of this legislation, see CRS Report RL30497, *Suspending the Gas Tax: Analysis of S. 2285*.) 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. (For more detail on the windfall profit tax on crude oil that was imposed from 1980 until its repeal in 1988, see CRS Report 90-442, *The Windfall Profit Tax on Crude Oil: Overview of the Issues*.)

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 non-energy tax bills. This includes Title V of the Ticket to Work and Work Incentives Improvement Act of 1999 (P. L. 106-170), enacted on December 1999. Also, the 106th Congress did enact a package of \$500 million in loan guarantees for small independent oil and gas producers, which became law (P.L. 106-51) in August 1999.

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,” that has prompted congressional action on energy taxes and other energy policy measures.

Bush Administration Proposals

In 2001, the Bush Administration’s *National Energy Policy* report proposed a comprehensive energy plan that included a limited number of energy tax measures, some of which appeared in the Administration’s FY2002 and FY2003 budget requests and others that appeared in the President’s 2002 global climate change initiative. Some of these proposals were incorporated into the Job Creation and Worker Assistance Act and many appeared in the House version of H.R. 4. (For more on Bush Administration energy policy, see CRS Report RL31096. *Bush Energy Policy: Overview of Major Proposals and Legislation.*)

Job Creation and Worker Assistance Act (P.L. 107-147)

The Job Creation and Worker Assistance Act of 2002 (H.R. 3090) was signed into law by President Bush on March 9, 2002. The Act provides a \$42 billion, ten-year tax cut and it retroactively extended several energy tax provisions:

- ! **§45 Tax Credit for Electricity Produced From Wind, Biomass, and Poultry Waste.** The 1.5¢ per kilowatt hour (in real, 1992 dollars) tax credit for electricity produced from wind technologies, “closed-loop” biomass, and poultry waste (as described above), is available for 10 years after the generating facility is placed in service, for which the previous deadline was January 1, 2002. Section 603 of the law extends this placed-in-service deadline to December 31, 2003.
- ! **Tax Credit for Electric Vehicles.** The onset of the phase-out of the \$4,000 tax credit for the purchase of electric vehicles began on January 1, 2002. Section 602 of the law defers the onset of the phase-out date by two years.
- ! **Deduction for Clean-Fuel Vehicles and Certain Refueling Property.** The deduction for clean fuel vehicles, which ranges from \$2,000 to \$50,000, is to be phased out over 3 years beginning on January 1, 2002. Section 606 of the law defers the start-up of the phase-out to January 1, 2004.
- ! **Dyed Fuels Mandate.** Beginning on January 1, 2002, registered terminals were required to store both dyed diesel fuel and dyed kerosene in order to be allowed to sell undyed diesel and kerosene. Section 615 of the law repeals this mandate, retroactive to January 1, 2002.

- ! **Percentage Depletion Allowance.** This measure allows a percentage of gross income from marginal oil and natural gas wells to be deducted from taxes. A limit on the allowance was set at 100% of net income, but it was suspended from December 31, 1997, through January 1, 2002. Section 607 of the law extends this suspension through January 1, 2004.

Omnibus Energy Bills (H.R. 4)

In comparing House and Senate versions of H.R. 4, the House bill proposed larger energy tax cuts, with some energy tax increases. It reduced energy taxes by about \$36.5 billion over 10 years, in contrast to the Senate version, which cut about \$15.5 billion over 10 years. However, the Joint Tax Committee estimates that Senate bill would have encouraged use of an additional \$5.1 billion in tax credits over 10 years for two mandates: a Renewable Energy Portfolio Standard (Sec. 264, \$0.3 billion) and Renewable Fuel Standard (Sec. 820, \$4.8 billion). Projected tax revenue effects are shown in Table 1.

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 the House bill, as a relative share in dollar terms, about 75% of the tax cuts were for fossil fuels, 14% were for energy efficiency, 10% were for renewable and alternative fuels, and 1% were for miscellaneous provisions.

In comparison, the Senate bill 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. Specifically, as a relative share in dollar terms, about 43% of the tax cuts were for fossil fuels, 9% were for energy efficiency, 23% were for renewable and alternative fuels, and 25% were for incentives driven by the renewable energy mandates.

In contrasting tax provisions of the two bills, some notable differences follow.

Oil and Natural Gas Production. Section 2503 of the Senate bill creates a tax credit for Alaskan natural gas and there is no related provision in the House bill. However, Section 3309 of the House bill repeals a limit on the enhanced oil recovery tax credit and there is no related provision in the Senate bill. Further, for percentage depletion, the House bill has three provisions that have no match in the Senate bill: it suspends the 65% limit (Section 3302), it extends the operating loss carryback to five years (Section 3305), and it repeals the alternative minimum tax on intangible drilling costs (Section 3308).

Oil and Natural Gas Refining and Distribution. There are five House bill provisions that have no matches in the Senate bill. These provisions are shortening of accelerated depreciation for petroleum refining assets to seven years (Section 3203), phase out of the 4.3 cent portion of tax on train diesel fuel (Section 3115), phase out of the 4.3 cent portion of tax on barge diesel fuel (Section 3115), reduced tax on diesel fuel for highway vehicles (Section 3116), and exemption of public power utilities from natural gas arbitrage restrictions under tax exempt bond rules (Section 3213). However, there are also three Senate bill provisions that have no matches in the House bill. These provisions are increased exemptions from excise taxes on farm fuels (Section 2506), a new tax credit for excise taxes

on refuse truck fuels (Section 2009), and expanded exemptions from the ad valorem tax on certain airline fuels (Section 2506).

Coal. There is one House bill provision with no match in the Senate bill. Section 3209 of the House bill exempts certain stock acquisitions for electric power transmission transactions from capital gains tax.

Electricity Restructuring. There is one House provision with no match in the Senate bill. Section 3209 of the House bill creates an exemption from capital gains tax for the acquisition of stock (or assets) of any controlled corporation in a qualifying electric transmission transaction.

Energy Efficiency. All tax provisions have some representation in both versions of the bill. The bills have somewhat different provisions for new homes, existing homes, appliances, and energy management devices. The bills have identical or nearly identical provisions for residential solar equipment, business fuel cells, and combined heat and power (CHP).

Renewable and Alternative Fuels. There are five Senate bill provisions with no matches in the House bill. These provisions extend a tax credit to small ethanol producer cooperatives (Section 2005), allocate tax revenue from a 2.5 cent portion of fuel ethanol tax to the Highway Trust Fund (Section 2006), extend the tax credit for ethanol blends to Ethylene Tertiary Butyl Ether (ETBE) blends (Section 2007), create a tax credit for vegetable oil used in biodiesel fuel (Section 2008), and create a tax credit for the retail sale of an alternative fuel, including ethanol, compressed natural gas, and hydrogen (Section 2004).

Miscellaneous Energy Tax Proposals. There are four Senate bill provisions with no matches in the House bill. These provisions direct the Treasury Department to study of the effects of the §29 tax credit on the production of coalbed methane (Section 2309), direct the Treasury Department to study tax issues resulting from electricity restructuring (Section 2401), direct the General Accounting Office (GAO) to study the effectiveness of tax incentives for alternative-fueled vehicles and energy efficiency (Section 2502), and make gasoline or diesel sold in duty-free shops subject to payment of customs duties (Section 2504). Also, there is one House proposal that has no match in the Senate bill. Section 3212 of the House bill repeals a dyeing requirement for tax-exempt diesel and kerosene sold at terminal facilities. (For more details on energy tax measures in H.R. 4, see CRS Report RL31427, *Omnibus Energy Legislation: H.R. 4 Side-by-side Comparison*.)

Renewable Energy Mandates. In addition to estimating the direct impact of tax measures in H.R. 4, the Joint Tax Committee also estimates the indirect impact of the Renewable Energy Portfolio Standard and the Renewable Fuels Standard on the use of related tax provisions. This estimated effect of these mandates is shown in Table 1.

LEGISLATION

P.L. 107-147, H.R. 3090

Job Creation and Worker Assistance Act of 2002. Has tax incentives for renewable energy and alternative vehicles. House Committee on Ways and Means reported (H.Rept. 107-251) bill on October 17, 2001, with two-year extension of renewable energy production tax credit. Passed House October 24. Senate Finance Committee reported (Committee Print 107-49) an amendment in the nature of a substitute with an amendment to the title on November 9. Section 404 of the Senate version proposed one-year extension of renewable energy production tax credit. Brought to the floor November 13. Amended in Senate (S.Amdt. 2896) and passed Senate Feb.14, 2002. House approved agreement with Senate Amendment March 7, 2002. Signed into law March 9, 2002.

H.R. 4 (House Version)

Securing America's Future Energy (SAFE) Act of 2001. The energy tax provisions include about \$36.5 billion, over 10 years, of incentives for energy production and conservation. The tax provision of the bill incorporate measures from H.R. 2511, Energy Tax Policy Act. Introduced July 27, 2001; referred to Committee on Energy and Commerce, and to the Committees on Science, Ways and Means, Resources, Education and the Workforce, Transportation and Infrastructure, the Budget, and Financial Services. Passed House, amended, August 2, 2001. The conference committee for H.R. 4 began work on June 27, 2002, but has yet to take up the tax provisions.

H.R. 4 (Senate Version)

Energy Policy Act of 2002. Division H has several tax provisions that provide about \$20.6 billion, over 10 years, of incentives for energy conservation and fossil fuels production. In 2001, hearings were held on tax provisions in S. 389 (Republican bill) and S. 596 (Democratic bill). Many of the provisions in these two bills, some in amended form, were put forth in S. 1979 (S.Rept. 107-140), which, in turn, was amended and incorporated into S. 517. S. 517, in turn, was amended and incorporated into the Senate version of H.R. 4 as an amendment in the nature of a substitute (S.Amdt. 2917). The Senate version of H.R. 4 passed the Senate April 25, 2002. The conference committee for H.R. 4 began work on June 27, 2002, but has yet to take up the tax provisions.

H.R. 1459 (Hayworth)

Electric Power Industry Tax Modernization Act. Provides for increased flexibility in the treatment of tax-exempt bonds used to improve electric reliability, enhance transmission infrastructure, and to facilitate access to the electric transmission grid. Introduced April 4, 2001; referred to Committee on Ways and Means.

H.R. 2511 (McCrery)

The Energy Tax Policy Act of 2001. Provides tax incentives to encourage energy conservation, energy reliability, and energy production. Introduced July 17, 2001. Reported (H.Rept. 107-157) by the House Committee on Ways and Means July 24, 2001. The bill was incorporated into H.R. 4.

S. 979 (Baucus)

Energy Tax Incentives Act of 2001. Creates several energy tax credits and incentives. Reported (S.Rept. 107-140) March 1, 2002. S.Amdt. 3286 incorporated this bill into S. 517 (S.Amdt. 2917) April 23, 2002.

CONGRESSIONAL HEARINGS, REPORTS, AND DOCUMENTS

U.S. Congress. Joint Committee on Taxation. Estimated Revenue Effects of Division H of H.R. 4, the “Energy Tax Incentives Act of 2002,” and Certain Mandates, as Amended by the Senate. JCX-42-02] May 23, 2002. 4 p. [<http://www.house.gov/jct/pubs02.html>]

----- Comparison of Division C of H.R. 4, the “Energy Tax Policy Act of 2001,” as Passed by the House of Representatives and Division H of H.R. 4, the “Energy Tax Incentives Act of 2002,” as Amended by the Senate. [JCX-43-02] May 23, 2002. 56 p.

----- Estimates of Federal Tax Expenditures for Fiscal Years 2002-2006. (Energy taxes appear on p. 20-21) [JCS-1-02] January 17, 2002.

----- Committee on Finance. The Role of Tax Incentives in Energy Policy. Hearings, July 10, 11, 2001. S. Hrg. 108-267. 226 p.

----- Committee on Finance. Energy Tax Issues. Hearings, July 18, 2000. S. Hrg. 106-711. 109 p.

FOR ADDITIONAL READING

Cato Institute. *“Big Oil” at the Public Trough? An Examination of Petroleum Subsidies.* 2001. 13 p.

Energy Information Administration. *Federal Financial Interventions and Subsidies in the Energy Markets: Primary Energy.* SR/OIF /1999/03. [<http://www.eia.doe.gov/oiaf/servicerpt/subsidy>]

U.S. General Accounting Office. *Alternative Motor Fuels and Vehicles: Impact on the Transportation Sector.* 2001. [GAO-01-957T] 7 p.

CRS Reports

CRS Report RL31427. *Omnibus Energy Legislation: H.R. 4 Side-by-Side Comparison*, by Mark Holt and Carol Glover.

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

CRS Report RL30953. *Energy Tax Incentives: A Comparison of the National Energy Security Act of 2001 (S. 389) and the Democratic Alternative (S. 596)*, by Salvatore Lazzari.

Table 1. H.R. 4 Energy Tax Provisions: Summary of Ten-Year Revenue Loss by Type of Incentive (\$ millions)						
	House Version		Senate Version		House - Senate Difference	
FOSSIL FUELS						
Oil & Gas Production	8,762	24.0%	3,615	17.5%	5,147	58.7%
Oil & Gas Refining and Distribution	7,719	21.1%	1,558	7.6%	6,161	79.8%
Coal	2,991	8.2%	1,907	9.2%	1,084	36.2%
Electricity Restructuring	7,991	21.9%	1,839	8.9%	6,152	77.0%
Subtotal, Conventional	27,463	75.2%	8,919	43.2%	18,544	67.5%
EFFICIENCY, RENEWABLES, AND ALTERNATIVE FUELS						
Energy Efficiency	5,048	13.8%	1,793	8.7%	3,255	64.5%
Renewable Energy & Alternative Fuels	3,515	9.6%	4,769	23.1%	-1,254	-35.7%
Subtotal, Efficiency	8,563	23.5%	6,562	31.8%	2,001	23.4%
MISCELLANEOUS	485	1.3%	39	0.1%	446	92.0%
SUBTOTAL, DIRECT TAX PROVISIONS	36,511	100.0%	15,520	75.2%	20,991	57.5%
MANDATES						
Renewable Energy Portfolio Standard	0	0.0%	331	1.6%	-331	-----
Renewable Fuels Standard	0	0.0%	4,777	23.2%	-4,777	-----
Subtotal, Mandates	0	0.0%	5,108	24.8%	-5,108	-----
GRAND TOTAL	36,511	100.0%	20,628	100.0%	15,883	43.5%
Source: Joint Tax Committee estimates.						

Table 2. FY2001 Energy Tax Provisions and Estimated Revenue Effects (\$ millions)

Category	Provision	Major Limitations	Revenue Effect
CONVENTIONAL FOSSIL FUELS SUPPLY (bpd = barrels per day; < indicates less than)			
% depletion–oil/gas	15% of sales (higher for marginal wells)	for indep., up to 1,000 or equiv. bpd	- \$300
Expensing of IDC's–oil/gas & other fuels	100% deductible in first year	corporations expense only 70% of IDC's	- 600
Enhanced Oil Recovery Credit	15% of the costs	only for specific tertiary methods	- 200
% depletion–coal and other fuels	10% for coal	must be < 50% of taxable income	- < 50
coal excise tax (fy2000)	\$1.10/ton (0.55 for surface mines)	not to exceed 4.4% of sales price	527
ALTERNATIVE AND RENEWABLE FUELS			
§29, production tax credit	\$6.25/bar. (or \$1.00/mcf)	biogas, coal synfuels, coalbed methane, etc.	- 1,500
5.3¢ exemption for gasohol	exemption from motor fuels taxes	for biomass ethanol only	- 880
§45 credit for renewable electricity	1.7¢/kWh.	wind, closed loop biomass, and poultry waste	- 100
exclusion of interest on S&L bonds	interest income exempt from tax	for hydroelectric or biomass facilities used to produce electricity	-100
tax credits for alcohol fuels	53¢/gal+ 10¢/gal for small producer credit	only for biomass ethanol (e.g., corn)	- < 50
deduction for clean-fuel vehicles	\$2,000 for cars; \$50,000 for trucks; \$100,000 deduction for refueling facilities	CNG, LNG, LPG, hydrogen, neat alcohols, and electricity; phases out over 2002-2004	- < 50
tax credit for electric vehicles	10%, up to \$4,000	phase-out from 2002-2004	- < 50
credit for solar & geothermal tech.	10% investment tax credit for businesses	utilities excluded	- < 50
ENERGY CONSERVATION			
fuels taxes (FY2000)	18.4¢/gal of gas	4.4¢-24.4¢ for other fuels	33,500
mass trans. subsidies	exclusion of \$65/month	up to \$175/month for parking benefits	- 3,600
gas-guzzler tax (FY2000)	\$1,000-\$7,700/car	to limos and vehicles weighing 6,000 lbs. or less	71
exclusion for utility conservation subsidies	subsidies not taxable as income	any energy conservation measure	- < 50
Source: Joint Tax Committee and Internal Revenue Service estimates.			