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Energy Tax Policy

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SUMMARY

Congressional interest this year in energy tax policy has focused largely on S. 2285 and similar proposals for a possible moratorium on the payment of the 18.4¢/gallon gasoline tax, making up lost revenues to the Highway Trust Fund from the general fund. Legislative interest is also now focusing on broader energy tax policy issues – domestic production, import dependence, energy security, as well as alternative fuels, and energy efficiency. S. 2557, the Republican leadership's broadly-based energy bill, and S. 3152 included many such provisions.

Historically, 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 Due to the combined effects of the Economic Recovery Tax Act and the energy tax subsidies that had not been repealed, which together created negative effective tax rates in some cases, the actual energy tax policy differed from the stated policy.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 Bush and Clinton years witnessed a return to a much more activist energy tax policy, targeted, as in the 1970s, to energy conservation and alternative fuels. While the ultimate concern is to reduce the demand for imported oil, energy tax policy is being viewed as a tool for achieving environmental and fiscal objectives. The current posture of energy tax policy is weighted toward energy conservation — particularly petroleum in transportation — and alternative fuels supply.

The Clinton Administration's energy tax policy is, as before, focused on reducing the demand for petroleum by encouraging energy efficiency and providing incentives to promote the supply of alternative fuels and the demand for technologies that use these fuels. However, the Administration is emphasizing the environmental benefits from reducing greenhouse gases and addressing possible global climate change.

The Clinton Administration's FY2001 budget proposes several tax subsidies for energy conservation and alternative fuels: 1) solar energy tax credits very similar to those that expired in 1985; 2) a new tax credit for the cost of a new home that would meet certain energy efficiency standards; 3) a tax credit for advanced energy-efficient equipment for space heating and cooling and hot water heaters; 4) more accelerated depreciation deductions for distributed power technologies, including small electrical generating systems (self-generated power), and for co-generation systems; 5) a new tax credit for the purchase of hybrid vehicles – cars, minivans, sport utility vehicles, and pickups – that run alternately on a consumable fuel (such as gasoline) and a rechargeable energy storage system (such as an electric battery); 6) extension of the present $4,000 tax credit for electric vehicles, which would otherwise terminate on 2004; and 7) a liberalization of the renewable electricity credit from such wind systems and closed-loop biomass systems.

MOST RECENT DEVELOPMENTS

On October 27, the Senate postponed a vote on the Taxpayer Relief Act of 2000 (H.R. 5542, but attached to H.R. 2614) due to a threatened Presidential veto. This bill included a repeal of the 4.3¢ per gallon general fund excise tax on rail diesel and fuels used in barges on inland waterways. The Senate's tax cut proposal (S. 3152) included several other energy tax provisions to stimulate the supply of crude oil, improve energy efficiency, and increase the demand for renewable fuels (provisions similar to those in S. 2557, the Republican leadership's broadly based energy bill).

In response particularly to the spike in petroleum product prices in the spring and summer of this year, several bills have been introduced in the Senate to temporarily reduce the federal excise tax on gasoline and diesel fuel, and other special motor fuels. Senate floor action occurred on April 11 on S. 2285, by Senators Lott and Murkowski, to temporarily reduce most fuel taxes by either 4.3¢ or by all but the 0.1¢ component of these taxes (i.e., by 18.3¢ for gasoline, 24.3¢ for diesel fuel and kerosene, and 4.3¢ for aviation fuel). On that day the Senate failed to invoke cloture by a vote of 43-56. On April 6 a non-binding amendment to the FY2001 budget resolution (S.Con.Res. 101) expressing the sense of the Senate that the resolution should not assume a reduction in fuel taxes as proposed in S. 2285 was approved by a vote of 65-35. These actions seem to dim the hope of enacting this legislation, although the bill has not officially been withdrawn.

On December 17, 1999, the President signed H.R. 1180 (P.L. 106-170) the Ticket to Work and Work Incentives Improvement Act of 1999. Title V of the law, the Tax Relief and Extension Act of 1999, extended and liberalized the renewable electricity production tax credit, and renewed the suspension of the net income limitation for the percentage depletion allowance for marginal oil and gas wells.

In the FY2001 budget request, the President incorporated several energy tax incentives for more energy-efficient buildings and equipment, and for the supply of energy from renewables such as solar and biomass.

BACKGROUND AND ANALYSIS

Introduction

Virtually every major tax bill introduced in every Congress, and many of the relatively minor tax bills, propose to alter the tax treatment of the energy industries. For example, the Republican tax cut bill of 1999 (H.R.2488), which was vetoed, proposed tax cuts for oil and gas, and for alternative fuels. Growing dependence on imported petroleum and the problem of air pollution, and possible global climate change from the combustion of fossil fuels, have generated additional proposals to alter energy taxes. For example, the President's current budget, and his last two budgets, included proposals to significantly expand existing tax subsidies for energy conservation and alternative fuels. More recently, proposals have been made to reduce fuel taxes to offset rising petroleum prices, as well as to reinstate prior windfall profit taxes to reclaim any excess profits from these higher prices. And the current crisis in the energy markets has prompted the Senate to schedule consideration of S.2557, which includes among its many provisions many of the tax provisions in the vetoed bill H.R. 2488. This issue brief discusses the history of energy tax policy and some of the current

energy tax proposals. (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 – using the tax system to achieve energy policy objectives – is 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 recent energy tax proposals.

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 breaks for energy conservation or for supply or demand for alternative fuels. Two oil/gas tax code provisions embodied this policy: 1) expensing of intangible drilling costs (IDC's) 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 IDC's (such as labor costs, material costs, supplies, and repairs associated with the drilling of 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). 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.

These and other tax subsidies discussed later (e.g., 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). 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; they cause an accelerated depletion of the resource (i.e., the tax subsidies provide an unambiguous incentive to deplete sooner rather than later). Relatively low oil prices encouraged petroleum consumption (as opposed to conservation) and inhibited the development of alternative fuels. 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 change in federal energy tax policy. First, the revenue losses associated with the oil and gas tax preferences – since their inception, cumulative foregone revenues totaled in the tens of billions of dollars – became increasingly hard to justify in the face of a progressively worsening fiscal picture, and in view of the long-standing 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 similar 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 alleged "failures" of the energy markets and the need for greater government intervention.

Thus, during the 1970s there was a dramatic shift in energy policy objectives. Instead of expanding the supply of oil and gas, the objective of energy tax policy became a reduction in the demand for conventional oil and gas. Policy would focus on three general ways to reduce the demand for conventional fuels (i.e., "conserve energy"): 1) through a direct demand response (i.e., curbing energy use through higher prices, and reduced service or utility levels by reducing the number of miles driven or turning down thermostats in homes during the winter, etc.); 2) through substitution of more energy-efficient for less energy-efficient technologies (i.e., reduced energy demand through an increased demand for more energy-efficient houses, vehicles, industrial equipment and other energy-using capital goods); and 3) through an increased supply of alternative fuels (renewables such as solar, wind, biomass, ethanol fuel, and non-conventional fossil fuels such as shale oil, and coalbed methane), and stimulating investment in, and demand for, technologies that used these alternative sources of energy.

During the 1970s there was also a significant increase in the number of energy laws and regulations, such as the CAFÉ (Corporate Average Fuel Economy) standards to reduce transportation fuel use, and other interventions through the budget and the credit markets. This included some of the most extensive energy tax legislation ever enacted. Three broad actions through the tax code were taken to execute the new energy tax policy during the 1970s: First, the oil industry's two major tax preferences — expensing and percentage depletion — were significantly reduced, particularly the percentage depletion allowance, which was 1) completely eliminated for the major integrated oil companies (which produce about 75% of all the oil in the United States), and 2) 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 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 introduced in 1970 but not actually enacted until early 1980 (P.L. 96-223). The WPT (which was repealed in 1988) 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 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 which 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 there is legislation to reinstate it as part of Superfund reauthorization. (See CRS Issue Brief IB10011.)

The third broad action taken during the 1970s that reflected the new energy tax policy objectives was the introduction of numerous tax preferences specifically targeted for energy conservation, the development of the supply 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). These subsidies were then expanded under the WPT, which introduced additional new energy tax subsidies. The following list describes these:

- *The 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. The President's FY2001 budget includes a solar credit that is very similar to the 1978 residential energy tax credits (see "Tax Credits for Solar Energy Equipment," hereafter). S. 2557 would reinstate the residential energy tax credit for solar equipment, including rooftop panes, that heats water or generates electricity directly (photovoltaic systems).

- *Tax Subsidies for Alcohol Fuels.* The ETA also introduced the excise tax exemption for gasohol, currently at 5.4¢ per gallon (out of a gasoline tax of 18.4¢/gal.). Subsequent legislation extended the exemption and introduced the alcohol fuels "blenders" tax credits, and the 10¢/gal., small ethanol producers tax credit. The 1998 Transportation Equity Act (P.L. 105-178) extended the exemption at reduced rates.

- *The Gas Guzzler Tax.* The ETA created a federal tax on "gas guzzlers," a graduated excise tax on the sale of vehicles that do not meet the Corporate Average Fuel Economy (CAFÉ) standards established by the Environmental Protection Agency. The tax rate currently ranges from $1,000 for a vehicle rated between 21.5 and 22.5 MPG (miles per gallon) to $7,700 for a vehicle 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%.

- *The Alternative Fuels Production Tax Credit*. The 1980 WPT included a production tax credit to stimulate the supply of selected unconventional fuels: oil produced 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 $6.23 per barrel of liquid fuels and about $1.00 per thousand cubic feet (MCF) of gas in 1999.

- *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.

Reagan's Free-Market Energy Tax Policy

The Reagan era, the period from 1980-1988, witnessed the first attempt to create a free-market energy tax policy, i.e., an energy tax policy founded on the principles of neutrality, efficiency, and the removal of regulatory and tax barriers to efficient markets. This was a departure from the interventionist energy policies prevalent up to the 1980s, which were founded either on the alleged failures of the energy markets (the 1970s) or on the social benefits, including the defense benefits, from having a healthy oil industry (1916-1970).

Reagan's free-market views were well known prior to his election. During the 1980 Presidential campaign, he frequently proposed repeal of the WPT, the deregulation of energy prices, and the minimization of government intervention, including reduced spending and taxes. His 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 tax reform, which proposed fundamental reforms of federal energy tax policy. The Reagan Administration opposed using the tax law to promote either oil and gas development, energy conservation, or the supply of alternative fuels.

The Reagan Administration believed that the responsibility for commercializing conservation and alternative energy technologies rested with the private sector and that high oil prices would be ample encouragement for the development of alternative energy resources. This view was facilitated by the regime of high oil prices in 1981 and 1982. High oil prices in themselves created conservation incentives, stimulated oil and gas production, and rendered tax breaks for alternative resource less effective as a policy tool. The Administration also proposed to remove any artificial barriers to the development of renewable resources.

In terms of actual legislation, many of the Reagan Administration's objectives were realized. 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 noted, the WPT was repealed, but not until 1988, the end of the Reagan term.

The Administration's other energy tax policy proposals, however, were not adopted. The primary tax benefits for the oil/gas investments were not eliminated, although they were pared back as part of the Tax Reform Act (TRA) of 1986. For instance, expensing of IDCs was retained, but there was another cutback for integrated oil producers, who were required to amortize 30% of their intangible drilling costs over 5 years, as compared with 20% over a 3-year period. In addition, expensing was no longer available for IDCs incurred in foreign countries. The TRA specified that IDCs incurred abroad had to be either amortized over 10 years or added to the basis for cost depletion.

With respect to percentage depletion, the TRA provided that 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 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; this also applies to geothermal property.

Finally, the TRA of 1986 replaced the old minimum taxes with a new alternative minimum tax that in effect placed limits on the regular tax benefits to oil/gas producers from the expensing of IDCs and the percentage depletion allowance. However, in an effort to mitigate any burdensome effects of this new tax, the expensing deduction was not included in full as a tax preference item in the new minimum tax. Rather, only the excess of the deduction above 65% of net income was to be treated as a preference item. In most cases, investments in oil and gas properties were exempted from the passive loss limitation rules that were intended to curb tax shelter investments. Thus, a working interest in an oil and gas property was not treated as a passive activity. This implied that losses and credits derived from such an activity could be used as a tax shelter to offset the taxpayer's other income without limitations under the passive loss rules.

Perhaps the key characteristic of the Reagan Administration energy tax policy, however, was the extent to which its objectives were countered by the Administration's other tax policies. While the objective was to create a free-market energy policy, the unintended effects of the 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 investments in many alternative energy investments such as solar and synthetic fuels. Oil and gas investments, however, were still favored relative to investments in general, due to the retention of percentage depletion for independent producers and expensing of intangible drilling costs.

Other energy tax policy developments during the Reagan era were as follows:

- In 1984 the Deficit Reduction Act (P.L. 98-369) made several notable amendments to federal energy tax laws. First, it prevented the last stage of

a phased-in reduction in the WPT for newly discovered oil. Second, it corrected a technical error made in the percentage depletion provision of the Tax Reform Act of 1975. Finally, and more importantly, the 1984 tax law extended several of the tax incentives for alcohol fuels: (1) the excise tax exemption for alcohol fuels mixtures was raised from 5¢ to 6¢ per gallon; (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 to 60¢ per gallon; and (4) the duty on alcohol imported for use as a fuel was increased from 50 to 60¢ per gallon.

- In 1986 two environmental excise taxes were enacted that affected the oil industry. The first was the 8.2¢-per-barrel excise tax on oil received by refineries; it was imposed by the Superfund Amendments and Reauthorization Act of 1986 (P.L. 99-499). There was also an 11.7-per-barrel tax on imported crude oil and petroleum products to be paid by the importer. These differential tax rates were ruled to violate the General Agreements on Tariffs and Trade (GATT), and 1989 legislation (the Steel Trade Liberalization Program Implementation Act (P.L. 101-221)) corrected this problem by providing for a uniform rate of 9.7¢ per barrel. This law was an extension of the original Superfund law of 1980 that imposed the 0.79¢ per barrel oil tax. The original law expired on September 30, 1985. The new law became effective on January 1, 1987. The second environmental excise tax was a 1.3¢ per barrel tax on oil imposed as part of the Omnibus Budget Reconciliation Act of 1986 (P.L. 99-510). This tax would also be imposed on crude oil received by refineries, as well as on imported and exported crude oil and petroleum products. The revenues from this tax were to be allocated to the Oil Spill Liability Trust Fund, created to finance the costs of cleaning up chemical disposal sites and hazardous waste spills. But, in fact, no revenues were ever collected from this tax because the authorizing legislation — as required by the 1986 law — was not enacted until 1989. This is discussed in the next section.

- 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 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¢/gal. 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; 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 included additional energy tax incentives, including: 1) liberalization of the alcohol fuels tax exemption, 2) expansion of the §29 production tax credit for non-conventional energy resources; 3) two new tax incentives for biomass energy (an income tax deduction for the costs — up to $2,000 — of alcohol fuel powered vehicles and a 1.5¢ per kilowatt hour income tax credit for electricity produced from "closed-loop" biomass systems); and 4) tax relief for the oil and gas industry.

- *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¢/gal. 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 tax cut legislation also included a variety of excise tax provisions pertaining to motor fuels excise taxes, some of which involved tax reductions on alternative transportation fuels, and some of which involved increases such as on kerosene, which on balance further tilted energy tax policy toward alternative fuels.

- *Tax Relief and Extension Act (H.R. 2923).* Enacted as part of P.L. 106-170, the Ticket to Work and Work Incentives Improvement Act of 1999, title V of the law, the Tax Relief and Extension Act of 1999, extended and liberalized the renewable electricity production tax credit, and renewed the suspension of the net income limitation for the percentage depletion allowance for marginal oil and gas wells.

As this list suggests, after Reagan, energy tax policy returned more to the course established during the 1970s and primarily was directed at energy conservation and alternative fuels. However, there is an environmental twist to this newer version of energy tax policy, particularly in the more recent years, as the discussion of the President's proposals will demonstrate. Fiscal concerns, which for most of that period created a perennial search for more revenues to reduce budget deficits, has also driven energy tax policy proposals during the post-Reagan era. This is underscored by proposals to impose broad-based energy taxes such as the Btu (British Thermal Units) tax; however, they have not been enacted.

There is another major difference between energy tax policy in the 1970s and energy tax policy since 1988. Since 1988, 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 an existing tax breaks (or both).

As an indication of the current posture of federal energy tax policy, Table 1 at the end of this issue brief summarizes current energy tax provisions and the corresponding revenue effects (- indicates revenue losses, which means that the provision is a tax subsidy, or a tax preference, rather than a tax).

Current Legislative Proposals

In 1999, the broad Republican tax cut in H.R. 2488 (the Taxpayer Refund and Relief Act of 1999) – a $792 billion, ten-year tax cut proposal – packaged tax cuts for the oil and gas industry with several alternative fuels tax incentives. The tax breaks for the oil and gas industry, for example, included both new tax breaks and liberalizations of the tax treatment of expensing, percentage depletion, and enhanced oil recovery. This bill was approved by the Congress on August 5, 1999, but was vetoed by President Clinton on September 23, 1999. The Republican leadership recently has stated that it will revisit a number of the provisions in H.R. 2488, including the energy tax provisions, this year.

More recently, energy tax proposals have been incorporated in the President's proposed FY2001 budget and are being promoted by the Administration as being part of the President's Climate Change Technology Initiative (see CRS Report RL30452, *Climate Change Technology Initiative (CCTI): Research, Technology, and Related Programs*.) Also, legislative interest recently has focused on a possible moratorium on the payment of part of the federal excise taxes on gasoline and diesel fuel, which are taxed at 18.4¢ and 24.4¢/gallon respectively, as a way of helping consumers and truckers cushion the financial effect of the recent spike in fuel prices; higher prices raise transportation costs for all motorists, but reduce income (profits) for truckers.

Many of the energy tax provisions in H.R. 2488 are included in S. 2557, the Republican leadership's broadly based energy bill. S. 2557 would enhance energy security and address the current problems of high crude oil and petroleum product prices, and the potential crude oil and petroleum product shortages. It also includes tax provisions that were not in H.R. 2488. It was introduced in May 2000 and is scheduled for Senate floor consideration the week of September 25.

Energy Tax Proposals in The President's FY2001 Budget

The President's FY2001 budget, submitted in February of 2000, includes several energy tax proposals, all favoring energy efficiency and renewable fuels technologies. These energy tax preferences, which were first proposed as part of the FY1999 budget and modified for the FY2000 budget, are targeted toward energy efficiency and alternatives fuels – there are no tax incentives for oil and gas; and in fact the budget proposes to reinstate several expired environmental excise taxes on oil, including the Superfund energy taxes. This issue brief provides only a summary of the provisions. For more detail, including a comparison with current tax law, see CRS Report 98-193 E, *Global Climate Change: The Energy Tax Incentives in the President's FY2001 Budget*.

Energy Efficiency in Residential and Commercial Buildings. Three tax credits are proposed in the FY2001 budget to reduce the amount of conventional energy — electricity from fossil fuels, natural gas, heating oil, etc. — in residential and commercial buildings from

levels that would be used without these subsidies: (1) a tax credit for solar energy equipment; (2) a tax credit for the purchase of energy-efficient new homes; and (3) a tax credit for purchases of energy efficiency building equipment and materials.

Tax Credits for Solar Energy Equipment. The Administration proposes a system of solar energy tax credits very similar to those enacted in 1978 as part of President Carter's National Energy Plan – those that expired in 1985. Under the Administration's proposal, a tax credit for two types of solar-energy-using equipment would be provided: (1) a 15% tax credit for up to $13,334 in investments in rooftop solar equipment that uses photovoltaic cells to generate electricity, for a maximum tax credit of $2,000; and (2) a 15% tax credit for up to $6,667 in investments in solar water heating equipment (other than swimming pools), for a maximum tax credit of $1,000. Solar equipment installed in either a personal residence or a business would qualify for this tax credit, which would be nonrefundable, i.e., limited by the amount of tax otherwise owed. Both credits would be available beginning on January 1, 2001, but the credit for photovoltaic systems would last for 7 years, terminating on January 1, 2008, while the credit for water heating systems would last for 5 years, terminating on January 1, 2006. Photovoltaic systems use solar cells made of semiconductor material that convert sunlight directly into electricity. A photovoltaic solar system combines individual cells into an interconnected panel used as part of a sunlight-absorbing roof or as a separate self-contained electricity generating system.

Tax Credit for New Energy Efficient Homes. Some federal laws and certain states require energy-using home appliances, heating and cooling equipment, and insulation to meet certain energy efficiency standards. But there are otherwise no special tax incentives to encourage the supply of energy efficient homes. The President's FY2001 budget proposes a tax credit for the cost of a new home that would meet certain energy efficiency standards. The tax credit would be $1,000 for new homes that are at least 30% more efficient than the IECC (International Energy Conservation Code) standard purchased between January 1, 2001 and December 31, 2003. The tax credit would be $2,000 for new homes that are at least 50% more efficient than the IECC standard and are purchased between January 1, 2001 and December 31, 2005.

Tax Credit for Energy-Efficient Building Equipment. The last of the three tax credits to reduce fossil fuel use in residential and commercial buildings is a tax credit for the cost of several specified types of advanced energy-efficient equipment and technologies for space heating and cooling and hot water heaters. In the FY2000 budget this was a bi-level tax credit of either 10% or 20% dependent upon the efficiency rating of the eligible equipment. In the current budget this is a 20% tax credit toward the cost of the following three types of energy-efficient equipment:

- *Fuel cells* with a minimum generating capacity of 5Kw, and a generation efficiency of at least 35%. (The maximum credit would be $500 per kilowatt of capacity.)

- *Energy efficient electric heat pump water heaters.* A maximum tax credit of $500 per unit for heaters with an energy factor rating of at least 1.7 in the Department of Energy test procedure;

- *More energy efficient natural gas heat pumps*. Those with an energy factor of at least 1.25 for heating and at least 0.70 for cooling would qualify for a maximum tax credit of $1,000 per unit;

Energy Efficiency in Commercial and Industrial Energy Use. The President's FY2001 budget proposes to accelerate depreciation deductions for small electrical generating systems (self-generated power) and for co-generation systems, which the budget calls distributed power technologies. Such equipment would all be depreciated over a 15 year recovery period, thus reducing the recovery period for many types of equipment used in commercial and rental buildings, which were depreciated over much longer time periods. This reclassification to shorter recovery periods also allows distributed power systems and combined heat and power systems to qualify for a more accelerated method of depreciation (150% declining balance rather than straight line depreciation) which basically means that more of the equipment costs can be written off in the early years, thus increasing the present value of the depreciation deduction, and reducing effective tax rates.

Distributed power equipment would include combined heat and power equipment, which are energy systems that capture the thermal energy (for either heating or cooling) or the mechanical power — whatever the case may be — that would otherwise be wasted when industrial manufacturing processes generate electricity. Thus, they are essentially a type of co-generation equipment: with one source of energy, a company can simultaneously power its turbines to generate electricity to either heat or cool its building or provide mechanical power used in some manufacturing process. Fuel inputs are conserved by making an energy-using process — the generation of electrical power — more efficient: the otherwise wasted energy would be harnessed and would be used in the same process.

Energy Efficiency in the Transportation Sector. Greater energy tax subsidies are also targeted for more energy efficient automobiles and trucks – the single largest users of petroleum – and for purchases of electric powered vehicles.

Tax Credit for Fuel Efficient Hybrid Vehicles. A new tax credit would be available for the purchase of cars and light trucks (including minivans, sport utility vehicles, and pickups) that run alternately on a consumable fuel, such as gasoline, and a rechargeable energy storage system (such as an electric battery). These "hybrid" fuel vehicles, which are more economical — fuel efficient — than comparable vehicles in their class, would qualify for an income tax credit from $750 to $3,000 per vehicle, depending on two factors: 1) the proportion of the vehicle's power generated by the energy storage system (the higher the proportion, the greater the tax credit); and 2) whether the vehicle has a regenerative braking system (in which case the credit is greater depending upon how much energy is supplied by such a system). A qualifying hybrid vehicle would be a vehicle powered by onboard fuel, which uses regenerative braking and an energy storage system that will recover at least 60% of the energy in a typical 70-0 braking event. Such a qualifying vehicle would have to satisfy all emission requirements applicable to gasoline-powered automobiles. This credit would be available for vehicles purchased between January 1, 2003, and December 31, 2006.

Tax Credit for Electric Vehicles. The second transportation tax provision is a liberalization of the current tax credit for electric vehicles. Under current law, consumers who purchase an electric vehicle can claim a 10% nonrefundable tax credit for the cost of the vehicle placed in service prior to 2005. The maximum credit is $4,000 but only for purchases made through 2001. For vehicles purchased between 2002 and 2004, the credit is reduced

by 25% each year, which means the credit ends in 2004. The President's FY2001 budget proposes to repeal the phase-out of the credit; it would be extended through 2006. Thus, the maximum $4,000 tax credit would be available through 2006. (Current tax law also has more liberal depreciation treatment of electric vehicles used in businesses. (See CRS Report 98-193 E for more detail.)

Liberalization of the Renewable Electricity Production Tax Credit. Finally, the President's FY2001 budget also proposes a liberalization of the current 1.5¢/kWh tax credit for electricity produced from wind systems, closed-loop biomass systems, and other biomass. The current credit remains available when electricity reference prices (which are separate for wind and biomass) are below statutorily determined threshold base prices. For 1999 (the latest year available) reference prices were 4.836¢ for electricity produced from wind and 0¢ for electricity produced from biomass. The threshold price of electricity was about 9¢/kWh. Since both reference prices were less than the threshold prices for the credit phase-out, the renewable electricity credit was not phased-out and remained at 1.7¢/ kWh (1.5¢ times the inflation adjustment factor). However, it is not known whether in fact any electricity produced from wind and biomass actually qualifies for the tax credit. In calender year 1996, there were no sales of electricity produced from closed-loop biomass energy resources under contracts signed after December 31, 1989.

The President's proposal would make several important amendments to the renewable electricity tax credit:

- The placed- in-service deadline for wind and closed-loop biomass would be extended by 2 ½ years from January 1, 2002 (present law) to July 1, 2004 (the credit would continue to be available for up to 10 years after that);

- The definition of eligible biomass sources would be substantially expanded to include solid, nonhazardous, cellulosic waste material that is segregated from other waste materials, and that is derived from one of several qualifying types of forest-related resources. The credit for electricity produced from these would be reduced to 1.0¢/kWh;

- Powerplants that can co-fire biomass and coal to generate electricity would qualify for the tax credit but at a reduced rate of 0.5¢ per kWh hour adjusted for post-2000 inflation; and

- Output of electricity generated from facilities that use methane from landfills (bio-gas) would be eligible for a tax credit of either 1.5¢ or 1.0¢/kWh depending on whether the facilities meet the Environmental Protection Agencies New Source Performance Standards.

Moratorium on Motor Fuel Excise Taxes

Policymakers are currently focused on possible policy options to address the recent spike in petroleum prices, including a moratorium on the payment of gasoline and diesel fuel excise taxes. Virtually all transportation fuels are taxed under a complicated structure of tax rates and exemptions that vary by mode and type of fuel. Gasoline used in highway transportation — the fuel used more than any other — is taxed at a rate of 18.4¢ per gallon, composed of: an 18.3¢ Highway Trust Fund rate, which goes into the federal highway trust fund (HTF); and

a 0.1¢ rate that is earmarked for the Leaking Underground Storage Tank Trust Fund (LUST), which finances the cost of cleaning up spills from underground fuel storage tanks. The HTF component of the gasoline tax, the single largest source of revenue for the HTF, is projected to yield $22.3 billion for FY2001 (i.e., motorists will pay an additional $22.3 billion in fuel costs for the HTF). Most of that revenue (15.44¢/gal. of the 18.3¢ per gallon tax) goes into the "highway account" to be used for highway construction and maintenance; revenues from the remaining 2.86¢ are allocated to the "mass transit account," to be used for capital expenditures on mass transit systems.

Diesel fuel for highway use — the second most commonly used highway fuel, used mostly by trucks — and kerosene to the extent that it also used as a highway fuel, are taxed at 24.4¢ per gallon, 6¢/gallon more than gasoline. The tax on kerosene used on the highways was added as part of the Taxpayer Relief Act of 1997 in order to reduce tax evasion. Kerosene and diesel (also called distillates) used as heating oil get a full refund or tax credit. The highway tax on diesel (and kerosene) fuel also comprises two components: a 24.3¢ rate that is allocated into the HTF, and 0.1¢ that goes into the LUST fund. Unlike gasoline, however, which is largely consumed for personal use, diesel fuel is used primarily in trucks that transport goods, i.e, it is primarily used by businesses. Gross revenues from the diesel tax are estimated to be about $7.5 billion in FY2001. However, as this tax is a cost of doing business for truckers, it is deductible against income taxes so that the net revenue yield to the federal government — i.e., the net cost to truckers — is smaller by about 25%, according to the Joint Committee on Taxation, the official scorer on such matters. Thus, net revenues in FY2001, including offsets, are estimated at about $5.6 billion. Revenues from 2.86¢ of the tax are also allocated for mass transit; revenues from the remaining 24.3¢ HTF component (21.44¢) go into the highway account. Truckers also pay three other federal excise taxes, whose revenues also go to the HTF. Besides gasoline and diesel, other transportation fuels are also taxed at varying rates: railroad diesel and aviation fuel are taxed at 4.4¢/gal.; diesel fuel used by barges and other vessels on the inland waterways pay a tax of 24.4¢/gal.

Brief History of Motor Fuels Taxes. The federal excise tax on gasoline was first enacted in 1932, at the rate of 1¢/gal. in order to reduce budget deficits, which were mounting due to the great depression. Diesel fuel was added in 1951 at the rate of 2¢/ gal. All the revenues went into the general fund. The taxes were raised gradually to 4¢ by 1959, with revenues going into the newly created Highway Trust Fund, which was created in 1956.

Proposals to increase the federal excise tax on gasoline became common during and after the 1973-1974 Arab oil embargo and subsequent rises in crude oil prices. Coming in the aftermath of the 1973-74 oil shock, such proposals were intended largely to reduce consumption of motor fuels (by raising their prices), and thereby to reduce oil imports. Perhaps best known of these proposals was Senator Jackson's -- to raise the tax by $1.00 per gallon. Other major proposals of the period were Senator Johnston's and Representative Anderson's 50¢ increase proposals (S. 1749 and H.R. 6071, 96th Congress). Senator Bentsen's 1975 bill (S. 973, 94th Congress) proposed a phased-in increase of up to 20¢ per gallon to be credited against the income tax.

Emphasis on the revenue-raising potential of the gasoline tax began in the early 1980s, as it became clear that the federal budget was headed for large deficits over the next several years. From 1983 to 1993, there were five tax increases, raising them to their present levels. In late 1982, in addition to concern about fiscal deficits and energy security, attention began to focus on the allegedly large portion of roads and highways that had fallen into disrepair.

Title I of the Surface Transportation Assistance Act of 1982 (P.L. 97-424) raised the taxes by 5¢/gallon (to 9¢, effective April 1, 1983). The Tax Reform Act of 1984 (P.L. 98-369) raised the diesel fuel tax another 6¢ /gallon (to 15¢) and thus introduced the differential between gasoline and diesel tax rates. This was part of a congressional compromise that raised the diesel tax in return for repeal of a scheduled boost in highway use taxes truckers pay based on vehicle weights. An 0.1¢ per-gallon tax was added by the Superfund Amendments and Reauthorization Act of 1986 (P.L. 99-499) to fund the clean-up of spills from leaking underground storage tanks (LUST). This tax terminated on December 31, 1995, but was reinstated by the Taxpayer Relief Act of 1997.

During the early 1990s, deficit reduction continued to be a key underlying objective of many of the proposals to hike motor fuel excise taxes. The Omnibus Budget and Reconciliation Act of 1990 raised the gasoline and diesel fuel taxes by another 5¢ per gallon, designating 2.5¢ for deficit reduction. Some also saw it as a means of raising highway vehicle fuel efficiency (rather than by strengthening fuel economy standards). The Omnibus Budget Reconciliation Act of 1993 increased the portion of motor fuels taxes by 4.3¢, with all of the increase designated for the general fund (raising the total general fund component to 6.8¢ per gallon). This tax was the congressional substitute for the Clinton Administration's ill-fated Btu (British Thermal Unit) tax. On October 1, 1995, the 2.5¢ portion of the 6.8¢ general fund component was reallocated to the HTF; on October 1, 1997 the remaining 4.3¢ part of the general fund component was also designated for the HTF, the result of the Taxpayer Relief Act of 1997. Thus, as a result of the 1997 legislative amendments there is no longer a 4.3¢ motor fuels tax component in the Internal Revenue Code.

Legislative Proposals. Several energy tax proposals have recently been made in response to the high petroleum product prices, particularly higher than average prices in the in the Midwest. Some congressional legislation proposes to reduce the federal excise taxes on the various transportation fuels; other legislation proposes to impose a windfall profit tax on refiners and other suppliers on the assumption that they might be gouging consumers and earning "excess profits." In the spring of this year, following a similar spike in heating oil and diesel fuel in the Northeast during the winter of 1999/2000, Senators Lott and Murkowski proposed (in S. 2285) to temporarily repeal the motor fuels excise taxes – a so-called "fuels tax holiday."(For a more detailed discussion of S. 2285, see CRS Report RL30497, *Suspending the Gas Tax: Analysis of S. 2285*.). More recently, as a result of the spike in gasoline prices in the Midwest, there is a recrudescence of interest in these excise tax relief proposals as well as interest in proposals to impose a windfall profit tax. A windfall profit tax on crude oil, rather than petroleum products, was imposed from 1980 until its repeal in 1988. (For more detail on this tax see CRS Report 90-442 E), *The Windfall Profit Tax on Crude Oil: Overview of the Issues.)*

LEGISLATION

H.R. 3749 (Ramstad)

Amends the Internal Revenue Code of 1986 to temporarily repeal 10¢ of the highway trust fund taxes on gasoline, diesel, and kerosene. Specifies that the highway trust fund revenues are to be maintained from general revenues in the amount of the estimated revenue loss from repeal. Introduced February 29, 2000; referred to Committee on Ways and Means.

H.R. 3881 (Graham)

Amends the Internal Revenue code of 1986 to permanently repeal the 4.3¢ increase on most motor fuels enacted in 1993, including aviation fuel. Introduced March 9, 2000; referred to Committee on Ways and Means.

H.R. 4006 (Collins)

Amends the Internal Revenue Code of 1986 to temporarily repeal the 5¢ per gallon motor fuels tax increase enacted in 1990 and the 4.3¢ per gallon tax increases enacted in 1993. Permanently repeals the fuels taxes after September 30, 2007. Introduced on March 29, 2000; referred to the Committee on Ways and Means.

H.R. 5542 (Armey)

Taxpayer Relief Act of 2000. Includes provisions to increase tax benefits for pensions and IRAs and health insurance; several provisions for small business; reform of the foreign sales corporation rules; and repeal of the general fund excise tax on rail diesel and inland waterways fuel.

S. 1833 (Daschle)

Energy Security Tax Act of 1999. This is a very broad based bill to expand current law incentives and provides many additional and sizeable tax incentives to encourage the use of more efficient energy consumption technologies (such as clean-coal technologies) and the use of alternative fuels. Also includes additional new tax incentives for oil and gas production. Introduced on October 29, 1999; referred to Committee on Finance.

S. 2285 (Lott)

Amends the Internal Revenue Code of 1986 to temporarily repeal the excise taxes on gasoline, diesel (including Kerosene), and aviation fuel by either 4.3¢/gal., or by all but the 0.1¢/gal. LUST fund tax. Maintains HTF revenues by allocating the equivalent of foregone excise tax revenues from the general fund. Introduced March 22, 2000; read the second time and placed on calendar.

S. 2557 (Lott)

The National Energy Security Act of 2000. Amends the Internal Revenue Code of 1986 to provide a number of tax incentives for domestic oil and gas production as well as for the use of renewable energy resources such as biomass, and solar energy, and for increased energy efficiency, and energy conservation. Introduced May 16; placed directly on the Senate calendar. A motion to proceed for floor consideration was approved on September 22, 2000.

S. 3152 (Roth)

The Community Renewal and New Markets Act of 2000. Provides various tax incentives for distressed communities, affordable housing, urban and rural infrastructure, tax relief for farmers, the production of energy, conservation, and energy efficiency, and several additional tax provisions. Introduced on October 3, 2000; referred to Committee on Finance

Table 1. Energy Tax Provisions and Revenue Effects (in $ mil.) in Current Tax Code

Category	Provision	Major Limitations	Revenue Effect
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	- $500
% depletion--coal and other fuels	10% for coal	must be < 50% of taxable income	- 300
Expensing of IDC's--oil/gas & other fuels	100% deductible in first year	corporations expense only 70% of IDC's	- 400
Enhanced Oil Recovery Credit	15% of the costs	only for specific tertiary methods	<-50
ALTERNATIVE FUELS SUPPLY			
§29, production tax credit	$6.25/gal (or $1.00/mcf)	biogas, coal synfuels, coalbed methane, etc.	-1,300
5.4¢ exemption for gasohol	exemption from motor fuels taxes	for biomass ethanol only	- 700
tax credits for alcohol fuels	54¢/gal+ 10¢/gal for small producers	only for biomass ethanol (e.g., corn)	<-50
exclusion of interest on S&L bonds	interest income exempt from tax	for hydroelectric or biomass facilities	-100
deduction for clean-fuel vehicles	$2,000 for cars; $50,000 for trucks	$100,000 deduction for refueling facilities	< -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	utilities excluded	<-50
credit for renewable electricity	1.5¢/kWh.	only for wind and closed loop biomass	-100
ENERGY CONSERVATION			
motor fuels taxes	18.4¢/gal of gas	4.4¢-24.4¢ for other fuels	31,000
coal excise tax	$1.10/ton (0.55 for surface mines)	not to exceed 4.4% of sales price	760
gas-guzzler tax	$1,000-$7,700/car	to limos and vehicles weighing 6,000 lbs. or less	<50
mass trans. subsidies	exclusion of $60/month	up to $155/month for parking benefits	-3,600
exclusion for utility conservation subsidies	subsidies not taxable as income	any energy conservation measure	<-50