

Raiding the People's Money: How the House Energy Bill (H.R. 4) Subsidizes Energy Industries

Prepared for Rep. Henry A. Waxman

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PREFACE

"The surplus is not the government's money; the surplus is the people's money!... It's your money."

> Presidential candidate Governor George W. Bush, November 1, 2000

"The biggest challenge is going to be how to best utilize taxpayer dollars to the benefit of industry, in my opinion."

Mike Smith, nominated as Assistant Secretary for Fossil Fuels, U.S. Department of Energy, January 30, 2002

On the campaign trail, President Bush repeatedly said that tax dollars are "your money" or "the people's money" – not the government's. But once in Washington, President Bush and the Congress have taken a different approach. Too often, "the people's money" is being used to fund tax breaks and subsidies for special interests.

This report is the first in a series of reports for Rep. Henry A. Waxman on how "the people's money" is being used in Washington. The report has been prepared by the Special Investigations Division of the minority staff of the Committee on Government Reform.

EXECUTIVE SUMMARY

This report, which was prepared at the request of Rep. Henry A. Waxman, examines H.R. 4, the energy bill passed by the U.S. House of Representatives on August 2, 2001. America needs an energy policy to improve our energy security, protect the environment, and help American consumers and taxpayers, but H.R. 4 does the opposite. The energy policy in H.R. 4 would increase our dependence on oil despite the national security risk, damage the environment, and subsidize major energy industries at the expense of American consumers and taxpayers.

A previous report on H.R. 4, entitled *Hitting the Jackpot: How the House Energy Bill* (*H.R. 4*) *Rewards Millions in Contributions with Billions in Returns*, was also prepared at the request of Rep. Waxman. That report found that energy interests that gave millions of dollars in campaign contributions during the last election cycle would receive billions of dollars in tax breaks and subsidies under this legislation. The cumulative value of the campaign contributions of the coal, oil and gas, nuclear, and electric utility industries in the 2000 election cycle was \$69.5 million; the cumulative value of the tax breaks and subsidies for these industries in H.R. 4 is almost \$34 billion.¹ If the campaign contributions are viewed as a form of "investment" in the legislative process, the "rate of return" on this investment is an astounding 47,700%. See Table 1.

This report looks at each provision of H.R. 4 to understand in detail what the bill does. Within the energy sector, the oil and gas industry gave the most in campaign contributions in the 2000 election cycle, and the oil and gas industry is the biggest winner in H.R. 4. Oil and gas companies would receive tens of billions in tax breaks and government subsidies from this bill. H.R. 4 would also let the oil and gas companies drill in our last untouched arctic wilderness, the Arctic National Wildlife Refuge.

The coal industry, the nuclear industry, and the electric utilities would also receive billions of dollars in tax breaks and subsidies, while the auto industry would receive extremely valuable regulatory breaks. Much of the support in the bill for renewable energy benefits the ethanol industry.

While H.R. 4 subsidizes the major industries that now supply energy, it does little to promote new energy sources and energy conservation. The United States will never pay down its energy deficit just by increasing supplies – that is like trying to balance the budget by increasing tax revenues, but never controlling spending. Yet H.R. 4 invests heavily in coal, oil and gas, and nuclear energy, not in conservation or renewable energy. Many of the provisions in H.R. 4 aimed at conservation and renewable energy are weak or ineffectual, and some are even counter-productive.

¹This number has been revised to reflect new information that was not available at the time *Hitting the Jackpot* was issued.

Industry	Total Contributions, 1999-2000	Total Industry Benefits in H.R. 4	Rate of Return on Investment
Coal	\$ 3,800,000	\$ 5,844,000,000	153,700%
Oil and gas	\$33,300,000	\$19,493,000,000	58,400%
Electric Utilities	\$18,600,000	\$ 5,862,000,000	31,400%
Nuclear	\$13,800,000	\$ 2,666,000,000	19,200%
Totals	\$69,500,000	\$33,865,000,000	47,700%

I. OVERVIEW

This report provides an overview and a detailed section-by-section analysis of H.R. 4. The section-by-section analysis summarizes each provision of the legislation. This overview section organizes the results of the section-by-section analysis to provide a more general perspective on the bill. The overview compares the benefits H.R. 4 provides to specific industries to the campaign contributions made by the industries. The overview also summarizes the inadequate support in H.R. 4 for energy conservation, energy efficiency, renewable energy, and alternative energy sources.

A. Industry-Specific Provisions

H.R. 4 will provide billions of dollars in industry tax breaks and subsidies, as well as regulatory and other benefits. Six large industries are the key beneficiaries: the oil and gas industry; the coal industry; the nuclear industry; electric utilities; auto manufacturers; and ethanol producers. Other industries, individual corporations, and other entities also benefit from various provisions. Each of these six key industries provided very large campaign contributions in the 1999-2000 election cycle, the majority of which went to Republicans.

1. <u>Oil and Gas Industry</u>

The oil and gas industry gave \$33.3 million in the 2000 election cycle, of which 78% went to Republicans.² Under H.R. 4, the industry is allowed to drill in the Arctic National Wildlife Refuge (ANWR), and it receives massive tax breaks, breaks on royalties for oil and gas extraction from public lands, government subsidies, and reduced environmental protections for

²Center for Responsive Politics (information available online at http://www.opensecrets.org/industries/index.asp).

drilling on public lands.

The largest tax breaks in H.R. 4 apply to oil and gas production. According to the Joint Committee on Taxation, these tax breaks are worth \$14.0 billion over the next ten years.³ There are sixteen separate provisions allowing oil and gas producers to reduce their tax payments, in addition to two provisions reducing certain excise taxes on diesel fuel.⁴ For example, the bill would allow oil and gas producers to accelerate depreciation,⁵ carry losses back for five years,⁶ avoid otherwise applicable alternative minimum tax requirements,⁷ and expense various costs.⁸

H.R. 4 further subsidizes the industry through breaks on royalties for oil and gas drilling on federal lands. It requires the Interior Department to reduce royalty rates for "marginal" oil and gas wells, which are defined so generously as to cover most onshore wells.⁹ According to the Congressional Budget Office (CBO), this provision would cost \$491 million in lost royalties.¹⁰ It would also suspend royalties for certain offshore oil and gas lease sales.¹¹ And the bill would require the federal government to reimburse the industry for spending on required environmental analyses.¹² CBO estimates that this could cost \$350 million in forgone royalties over a ten-year

³Staff of the Joint Committee on Taxation, *Estimated Revenue Effects of a Chairman's Amendment in the Nature of a Substitute to the "Energy Tax Policy Act Of 2001" Scheduled for Markup by the Committee on Ways and Means on July 18, 2001*, 107th Cong. (July 18, 2001) (JCX-62-01) (hereinafter "Joint Committee on Taxation, Staff Report (July 18, 2001)").

⁴§§ 3115-3116, 3201-3206, 3301-3310.

⁵See §§ 3201, 3202, 3203 (discussed in part II below).

⁶See § 3305 (discussed in part II below).

⁷*See* §§ 3307, 3308, 3309 (discussed in part II below).

⁸See §§ 3204, 3303, 3304 (discussed in part II below).

⁹See § 6233; House Committee on Resources, Additional Dissenting Views on H.R. 2436 Filed by Rep. Ron Kind and Rep. Nick Rahall, 107th Cong. (July 20, 2001) (available online at http://www.house.gov/apps/list/hearing/ii00_democrats/dissentingvwsnjrkind.html); Bill Would Shift Drilling Approvals From Forest Supervisors to White House Official, Los Angeles Times (Aug. 2, 2001).

¹⁰Congressional Budget Office, Cost Estimate for H.R. 2436 (July 27, 2001).

¹¹§ 6202.

¹²§ 6234.

period.¹³

H.R. 4 provides an additional \$900 million for research and development and demonstration grants for technologies for ultra-deepwater mining.¹⁴ It also authorizes up to 7.5% of total federal income from oil and gas leases from FY2002-FY2009 to be used to fund ultra-deepwater research and demonstration projects.¹⁵ This could give the oil industry an additional subsidy of up to \$3.7 billion at the expense of other federal priorities funded from leasing royalties, such as land conservation.¹⁶ H.R. 4 authorizes \$10 million for oil shale research.¹⁷ In addition, the bill authorizes over \$800 million for Department of Energy (DOE) oil and gas programs, just over the next few years.¹⁸

In total, these tax breaks and other subsidies for the oil and gas industry amount to \$19.5 billion over the next ten years.¹⁹

H.R. 4 also allows oil and gas drilling in ANWR, one of the oil industry's top legislative priorities.²⁰ In addition, it waives environmental protections that would otherwise apply to drilling in ANWR.²¹ Moreover, while the bill includes provisions ostensibly intended to minimize the environmental impacts of drilling, careful analysis reveals that the promised

¹³Congressional Budget Office, Cost Estimate for H.R. 2436 (July 27, 2001).

¹⁴§ 2450. The \$900 million authorized to be appropriated for the "Ultra-Deepwater and Unconventional Gas Research Fund" is to be considered a loan from the Treasury, to be repaid through royalties, if any are received. However, any such royalties would have gone to the federal government in any event, so there does not appear to be any net repayment.

¹⁵§ 2450.

¹⁶See § 2450 (discussed in part II below).

¹⁷§ 2424.

¹⁸See § 2481.

¹⁹This number reflects new information that was not available at the time *Hitting the Jackpot* was issued.

²⁰See §§ 6501-6512.

²¹See §§ 6503, 6508 (discussed in part II below). These provisions limit the applicability of the National Environmental Policy Act (NEPA) protections, which would otherwise require certain environmental reviews in making leasing decisions, with participation by the public and other agencies, such as the Fish and Wildlife Service, and opportunity for judicial review.

protections are limited, vague, and unenforceable.²² For example, advocates for drilling imply that a 2,000 acre limit on production facilities will limit the extent of the damage to 2,000 acres. Yet the 2,000 acre limit applies only to a subset of the production activities that destroy wildlife habitat, and hence it does nothing to contain the destruction from activities such as gravel mines and roads.²³

H.R. 4 seriously weakens environmental protections for leasing and drilling on other federal lands as well. The legislation makes it much more difficult for federal land management agencies to reject lease offers for drilling on public lands.²⁴ The Forest Service would no longer have authority to require protective stipulations in leases on national forest lands, as only the Secretary of Agriculture or a specified undersecretary would be able to insist on such protections.²⁵ In addition, it would be difficult for even the Secretary of Agriculture to stipulate environmental protections in leases for drilling on national forest lands if the state has not made such stipulations.²⁶

This legislation also gives the oil and gas industry numerous other benefits in the form of other changes in royalty policies, additional research authorizations, and directives to regulatory agencies. For example, the bill would allow the Interior Department to accept royalties in kind (in barrels of oil or units of gas) from leasing federal lands.²⁷ In the past, the federal government has lost money in converting in-kind oil and gas royalties to revenues.²⁸ The bill also requires the

²³See § 6507 (discussed in part II below).

²⁴See § 6223 (discussed in part II below). This provision would require land managers to reexamine and provide additional justification for decisions to reject lease applications.

²⁵§ 6225.

 ^{26}See § 6223 (discussed in part II below). Any such protective stipulations would have to be identified and separately justified.

²⁷§ 6232.

²⁸Congressional Budget Office, Cost Estimate for H.R. 2436 (July 27, 2001); House Committee on Resources, *Additional Dissenting Views on H.R. 2436 Filed by Rep. Ron Kind and Rep. Nick Rahall*, 107th Cong. (July 20, 2001) (available online at http://www.house.gov/apps/ list/hearing/ii00_democrats/dissentingvwsnjrkind.html). *See also* discussion of § 6232 in part II below.

²²See §§ 6501-6512 (discussed in part II below). Many of the "protections" depend upon implementation by the Interior Department, which has enormous discretion under H.R. 4 to make decisions about specific activities in ANWR, such as whether to close an area during a wildlife breeding season or what drilling technology to require. The bill also lacks any procedural mechanisms to ensure that the Department considers the views of the public or other agencies, such as the Fish and Wildlife Service, in making these decisions.

Department to reimburse the industry for any transportation and processing costs associated with the in-kind royalty payments.²⁹

In addition, the bill requires the Environmental Protection Agency (EPA) to conduct several rulemakings to consider relaxing regulations that affect the refining industry.³⁰ It also sets up an interagency task force to expedite permitting of natural gas pipelines, and contains several other provisions to expedite pipeline siting and construction.³¹

Highly specific provisions appear to benefit particular companies. For example, one provision would allow the Secretary of the Interior to suspend the term of existing subsalt leases, which would benefit Houston-based Anadarko Petroleum Corporation.³² According to the Center for Responsive Politics, Anadarko contributed \$448,529 during the 2000 election cycle, of which 98% was to Republicans.³³ Anadarko also reportedly has connections to Vice President Dick Cheney and his wife.³⁴

The tax breaks and subsidies for the oil and gas industry are not justified by economic hardships in the industry. The oil and gas industry has been particularly profitable in recent years. Three major oil and gas companies alone made \$309.1 billion in revenues in 2000, which translated to \$25.3 billion in profits.³⁵ A front page story in the *Wall Street Journal* last summer describes a "big problem" faced by the oil and gas industry: the companies are "sitting on nearly \$40 billion in cash" that they are struggling to invest.³⁶

²⁹§ 6232.

³⁰See §§ 501-503 (discussed in part II below).

³¹See §§ 6104, 6101, 6106 (discussed in part II below).

³²See § 6231 (discussed in part II below); House Committee on Resources, *Dissenting Views on H.R. 2436*, 107th Cong. (July 20, 2001) (available online at http://www.house.gov/apps/list/hearing/ii00_democrats/ dissentingvws.html). Anadarko Petroleum is an industry leader in subsalt oil and gas exploration, and this provision would allow Anadarko to hold its leases for these areas indefinitely without developing them.

³³Center for Responsive Politics (information available online at http://www.opensecrets.org/industries/index.asp).

³⁴Bush Energy Bill Has One Big Winner, Boston Globe (July 14, 2001) (available online at http://www.boston.com/dailyglobe2/195/nation/ Bush_energy_bill_has_one_big_winner+.shtml).

³⁵*See* Fortune.com (available online at http://www.fortune.com).

³⁶*Major Oil Companies Struggle to Spend Huge Hoards of Cash*, Wall Street Journal (July 30, 2001).

2. <u>Coal Industry</u>

The coal mining industry gave \$3.8 million in the 2000 election cycle, of which 88% went to Republicans.³⁷ Under H.R. 4, the industry receives almost \$6 billion in government subsidies and tax credits, regulatory breaks, and the potential for increased access for mining on public lands.

Authorizations in H.R. 4 would give the coal industry \$1.1 billion in direct subsidies over the next three years, plus an additional \$1.4 billion over the following seven years.³⁸ These subsidies include grants for research and development and commercial applications of technologies for coal-fired electricity generation. In addition, the bill provides tax credits for coal-fired power generation worth an estimated \$3.3 billion over ten years.³⁹ These tax credits subsidize both investment in coal-fired generation technologies and production of electricity from coal-fired generation. In total, this amounts to \$5.8 billion in federal funding for coal-fired power generation over the next ten years.

The bill also has many special breaks for the coal industry. For example, it would require the government, not industry, to pay the costs for industry applications to mine coal on federal lands.⁴⁰ It would also loosen planning requirements to address environmental damage from coal mining operations.⁴¹ H.R. 4 further facilitates coal mining at the expense of the environment by allowing mining units to be mined beyond the current 40 year limit.⁴² In addition, it changes current requirements regarding advance royalties to make them more favorable for the coal industry.⁴³

Another provision of H.R. 4 requires the Department of the Interior to inventory almost all federal public lands for their potential to produce coal, and to identify impediments to development, exempting only national parks and wilderness areas.⁴⁴ The inventory must cover

³⁹§§ 3117, 3118; Joint Committee on Taxation, Staff Report (July 18, 2001).

⁴⁰§ 6701.

⁴¹See § 6704 (discussed in part II below).

⁴²See § 6702 (discussed in part II below).

⁴³See § 6703 (discussed in part II below).

⁴⁴See § 6102 (discussed in part II below).

³⁷Center for Responsive Politics (information available online at http://www.opensecrets.org/industries/index.asp).

³⁸See §§ 2401, 5005 (discussed in part II below).

national wildlife sanctuaries, wild and scenic rivers, and roadless areas that are being considered for wilderness designation, facilitating coal mining in these areas.⁴⁵

3. <u>Electric Utilities</u>

Electric utilities gave \$18.6 million in the 2000 election cycle, of which 67% went to Republicans.⁴⁶ In H.R. 4, the industry receives almost \$6 billion in tax breaks, as well as benefits from the tax credits for coal-fired power generation discussed above.

Electric utilities would receive several specific tax breaks under H.R. 4. Changes to tax laws governing bond issuance would help utilities finance electricity production and would cost the Treasury \$2.5 billion over ten years.⁴⁷ Other provisions relating to sales of electricity transmission lines would cost \$2.4 billion over ten years.⁴⁸ These provisions would change the tax treatment of utilities' sales of transmission properties under electricity restructuring policies.⁴⁹ Special rules for electric cooperatives would cost \$179 million over ten years.⁵⁰ And a tax exemption for governmental utilities purchasing natural gas would cost \$827 million over ten years.⁵¹ In total, this amounts to \$5.9 billion in tax breaks for electric utilities over ten years.

Electric utilities would also benefit from other provisions in H.R. 4. The provisions discussed above providing tax credits and research and development subsidies for coal-fired power generation will provide billions of dollars to electric utilities. Another provision authorizes \$5 million per year for grants to insular areas (Puerto Rico, the Virgin Islands, etc.) for protecting transmission and distribution lines from hurricane damage.⁵²

4. <u>Nuclear Industry</u>

The nuclear industry gave more than \$13.8 million to federal candidates and campaign

⁴⁵See id.

⁴⁶Center for Responsive Politics (information available online at http://www.opensecrets.org/industries/index.asp).

⁴⁷See § 3207 (discussed in part II below); Joint Committee on Taxation, Staff Report (July 18, 2001).

⁴⁸§§ 3208, 3209; Joint Committee on Taxation, Staff Report (July 18, 2001).

⁴⁹See §§ 3208, 3209 (discussed in part II below).

⁵⁰§ 3211; Joint Committee on Taxation, Staff Report (July 18, 2001).

⁵¹§ 3213; Joint Committee on Taxation, Staff Report (July 18, 2001).

⁵²§ 6801.

committees in the 2000 election cycle, of which 67% went to Republicans.⁵³ In H.R. 4, the industry receives close to \$3 billion in tax breaks and subsidies, as well as price supports and regulatory benefits.

H.R. 4 gives tax breaks for nuclear power worth \$1.9 billion over the next ten years.⁵⁴ It also authorizes numerous subsidies for nuclear energy, totaling over \$633 million over the next three years, plus over \$100 million more in later years.⁵⁵ These provisions would subsidize research and demonstration projects in areas such as uranium mining (through in situ leaching),⁵⁶ uranium conversion operations,⁵⁷ fuel recycling,⁵⁸ plant optimization,⁵⁹ and nuclear technologies.⁶⁰ In total, H.R. 4 provides almost \$1.0 billion in tax breaks and subsidies for nuclear power in the next three years alone, and \$2.7 billion over the next ten years.

H.R. 4's funding for nuclear fuel reprocessing fulfills another special interest legislative objective, at the expense of national security, public health, and taxpayer dollars.⁶¹ H.R. 4 would overturn a decades-old U.S. policy against reprocessing spent reactor fuel to separate out plutonium for reactor fuel, which can then also be used for nuclear weapons.⁶² Reprocessing can contribute to nuclear proliferation because it produces surplus weapons-usable material; it is difficult to track and safeguard the plutonium produced; and non-nuclear states can use reprocessing technology to develop military nuclear capabilities.⁶³ Plutonium is also a much more expensive fuel source than uranium and is far more toxic, and reprocessing fuel to obtain plutonium generates large amounts of highly radioactive waste.⁶⁴

 64 *Id*.

⁵³Center for Responsive Politics (information available online at http://www.opensecrets.org/news/nuclear/); communication with Center for Responsive Politics staff (Oct. 30, 2001).

⁵⁴§ 3210; Joint Committee on Taxation, Staff Report (July 18, 2001).

⁵⁵§§ 305, 306, 2304, 2321, 2341, 2342, 2343, 2344.

⁵⁶See § 305 (discussed in part II below).

⁵⁷See § 306 (discussed in part II below).

⁵⁸See § 2321 (discussed in part II below).

⁵⁹See § 2342 (discussed in part II below).

⁶⁰See § 2343 (discussed in part II below).

⁶¹See § 2321 (discussed in part II below).

⁶²See discussion of § 2321 in part II below.

⁶³*Id*.

The bill gives the nuclear industry other benefits as well. It provides substantial price support to the uranium mining industry by prohibiting the federal government from selling its uranium inventories.⁶⁵ H.R. 4 also changes current law to authorize the Nuclear Regulatory Commission to collect fees for its services from federal agencies, rather than other licensees.⁶⁶ Other provisions change the license period for a nuclear reactor license and extend the time for use of funds for construction of conversion plants.⁶⁷ In addition, the bill would help new nuclear plants get built by promoting the idea of siting commercial plants at existing DOE sites.⁶⁸

5. <u>Auto Manufacturers</u>

The automotive manufacturing industry gave \$2.2 million in the 2000 election cycle, of which 69% went to Republicans.⁶⁹ In H.R. 4, the industry successfully avoided a serious attempt to improve the fuel efficiency of our nation's light-duty motor vehicle fleet, which has been getting *less* efficient since 1988.⁷⁰ H.R. 4 also extends a major loophole in the current requirements for motor vehicle fuel efficiency and provides the industry benefits through tax credits for vehicle purchases.

The most significant provisions in H.R. 4 regarding motor vehicles exempt auto manufacturers from any significant changes in fuel economy standards for SUVs and trucks for a decade. In the face of national concern over gas prices and our dependence on oil imports, H.R. 4 does not require any meaningful improvement in motor vehicle fuel efficiency, which is regulated under the Corporate Average Fuel Economy (CAFE) standards. The bill contains a requirement to reduce the amount of gasoline that SUVs and trucks would otherwise use over a six-year period (2004-2010) by five billion gallons.⁷¹ Although this figure sounds impressive, it represents only 0.2% of projected petroleum consumption.⁷² Moreover, the provision appears to weaken existing requirements for the National Highway Traffic Safety Administration to

⁶⁵See § 309 (discussed in part II below).

⁶⁶See § 302 (discussed in part II below).

⁶⁷§§ 301, 303.

⁶⁸See § 308 (discussed in part II below).

⁶⁹Center for Responsive Politics (information available online at http://www.opensecrets.org/industries/index.asp).

⁷⁰See National Research Council, *Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards*, 19 (2001).

⁷¹§ 201.

⁷²See discussion of § 201 in part II below; Rep. Henry A. Waxman, Analysis of the Burr Amendment to the Corporate Average Fuel Economy (CAFE) Law (July 19, 2001).

mandate more stringent reductions. When coupled with the bill's extension of a CAFE loophole for vehicles that could be run on ethanol (but almost never are), H.R. 4 will *reduce* overall motor vehicle fuel economy.⁷³

H.R. 4 also encourages the Department of Transportation (DOT) to set CAFE standards in a way that would shield automakers from incentives to reduce the weight of their heaviest SUVs.⁷⁴ And it requires a study of alternatives to CAFE standards.⁷⁵

The bill also provides tax credits of \$2 billion for purchases of new motor vehicles.⁷⁶ These credits are supposed to encourage purchases of advanced technology vehicles with superior fuel economy and very low tailpipe emissions. In fact, the credits apply so broadly that they will subsidize sales of some of the industry's highly profitable large SUVs, which will still have very poor gas mileage.⁷⁷

The bill provides numerous other breaks for the auto manufacturers. Several provisions intended to promote alternative fuels cover dual-fuel vehicles, rather than only dedicated alternative fuel vehicles. Dual-fuel vehicles can be run on either conventional gasoline or an alternative fuel, but in practice are almost always run on gasoline.⁷⁸ The CAFE provisions give auto makers credit for dual-fuel vehicles, which degrades the overall fuel economy of the national fleet.⁷⁹ The bill would also allow dual-fuel vehicles to use HOV lanes and set federal fleet acquisition requirements that can be met with dual-fuel vehicles.⁸⁰

⁷⁴See § 202 (discussed in part II below). This provision encourages DOT to set different CAFE standards for different weight classes of vehicles. This would remove the incentive for auto manufacturers to use new materials and technologies to make vehicles that are safer, stronger, and more fuel efficient.

⁷⁵See § 207 (discussed in part II below).

⁷⁶See Joint Committee on Taxation, Staff Report (July 18, 2001).

⁷⁷*See* § 3104 (discussed in part II below). For example, one manufacturer plans to introduce a truck with some hybrid technology that would still get less than 19 miles per gallon.

⁷⁹*Id*.

⁸⁰§§ 151, 205.

⁷³See § 203 (discussed in part II below); Rep. Henry A. Waxman, Analysis of the Burr Amendment to the Corporate Average Fuel Economy (CAFE) Law (July 19, 2001).

⁷⁸See discussion of § 203 in part II below.

6. <u>Ethanol Industry</u>

Entities with ethanol interests gave at least \$1.3 million in the 2000 election cycle, of which 63% went to Republicans.⁸¹ In H.R. 4, the industry will receive benefits from numerous provisions that support and encourage use of bioenergy.

Much of the support in H.R. 4 for renewable energy benefits the ethanol industry. The bill provides \$912 million in subsidies for bioenergy over the next five years.⁸² Several provisions encourage purchases of ethanol and other alternative fuels, as well as purchases of vehicles that can operate on these fuels. These provisions include a tax break worth \$15 million for purchases of refueling property,⁸³ and a grants program for state acquisition of alternative fuel vehicles.⁸⁴ Other provisions require federal fleets to acquire and use more ethanol and other alternative fuels.⁸⁵ Another section encourages a federal loan guarantee program for ethanol produced from solid waste.⁸⁶ H.R. 4 also requires EPA and DOE to report to Congress on the feasibility of requiring motor vehicle fuel to contain a certain amount of ethanol.⁸⁷

B. <u>Weak Energy Conservation and Renewable Energy Provisions</u>

Supporters of H.R. 4 have defended the bill's emphasis on increasing energy supply from traditional sources by arguing that the bill also supports energy conservation and renewable energy sources. For example, Rep. Billy Tauzin characterized H.R. 4 as "a fair and balanced approach that equally recognizes the importance of conservation and production in addressing

⁸²§ 2225.

⁸⁵§§ 205, 206.

⁸¹See Center for Responsive Politics (information available online at http://www.opensecrets.org/industries/index.asp) (see information posted for the following entities, which have ethanol interests: Archer Daniels Midland; Cargill; Williams Companies (includes Williams Bio-Energy); and the Ohio Corn Growers Association). The Center for Responsive Politics does not categorize donations associated with the ethanol industry. As a result, this estimate of campaign contributions related to ethanol interests is based on contributions made by only a very limited subset of all of the entities with ethanol interests.

⁸³§ 3105; Joint Committee on Taxation, Staff Report (July 18, 2001).

⁸⁴§§ 2103-2105.

⁸⁶See § 603 (discussed in part II below).

⁸⁷§ 604 (discussed in part II below).

our energy supply problems."⁸⁸ Unfortunately, H.R. 4 ignores numerous opportunities to promote energy conservation and renewable energy. As a result, H.R. 4 fails to develop a national energy policy that would enhance fuel diversity, energy security, cost-effective energy production, and environmental protection.

Closer examination reveals that while there are some positive conservation and renewable energy initiatives in the bill, many of these provisions are flawed. Some of the provisions are simply ineffectual: they are hortatory, vague, or undermined by loopholes. Other provisions are useful, but severely limited, often because a stronger or more inclusive provision was rejected during the legislative process. Some provisions appear more targeted to benefitting particular industry constituencies than increasing efficiency or renewable energy. Even more troubling, other superficially "green" provisions actually have the opposite effect, undermining their ostensible goals.

1. <u>H.R. 4 Fails to Adopt Critical Energy Efficiency and Renewable</u> <u>Energy Provisions</u>

With regard to energy efficiency and renewable energy, this legislation is most notable for what it lacks. H.R. 4 claims to establish a national energy policy to provide the nation reliable and affordable energy now and in the future. Yet this bill fails to adopt in any form three key policies for promoting energy conservation and renewable energy: a meaningful increase in the CAFE standards to reduce our dependence on oil imports; a requirement that some percentage of electricity generation come from renewable sources (the "renewable portfolio standard") to diversify our energy sources; and a line charge on transmission to fund state investments in energy efficiency and renewable energy (the "SMART Energy Efficiency Fund") to tap the cleanest and most cost-effective sources of electricity. Nor does the bill include any measures that would substitute for the benefits lost with these missed opportunities.

2. <u>Many Conservation and Renewable Provisions Are Ineffectual or</u> <u>Counterproductive</u>

Many of the energy conservation provisions in H.R. 4 appear simply to be window dressing. For example, one section authorizes the EnergySTAR program that EPA and DOE have implemented for years under their existing statutory authorities.⁸⁹ A purely hortatory provision encourages the Department of the Interior to conserve energy and use alternative

⁸⁸ Committee on Energy and Commerce, *News Release: Tauzin Applauds House Passage of Landmark Energy Bill* (August 2, 2001) (available online at http://energycommerce.house.gov/107/news/08022001_357.htm)

⁸⁹§ 141.

fuels.⁹⁰ Another provision mandates an increase in the fuel economy of the federal fleet,⁹¹ but because this will simply allow automakers to sell more inefficient cars to private purchasers, it will not reduce our national oil consumption or increase the efficiency of the overall fleet.⁹² A provision requiring the federal government to purchase air conditioners meeting a certain efficiency standard would not provide any energy savings due to loopholes.⁹³ Similarly, a provision requiring federal agencies to better measure their electricity consumption is unenforceable as drafted.⁹⁴ Another provision calls for a study that has already been done repeatedly, an examination of the feasibility of reducing the fuel use of autos.⁹⁵

A few provisions start to address important areas, but fail to capture large available and cost-effective energy savings. This is particularly true of the provisions on appliance standards. For example, energy efficiency experts have long called for limits on the power used by appliances when they are switched off but remain in "stand-by" mode. The final provision in H.R. 4 will produce only a fraction of the potential benefits from such a requirement, due to the provision's narrow scope and broad exemptions.⁹⁶ Similarly, H.R. 4 fails to require efficiency standards for numerous categories of appliances that would save consumers money overall.⁹⁷ And H.R. 4 entirely ignores the dramatic savings in energy and consumers' electric bills that

⁹⁰§ 6601.

⁹¹§ 204.

⁹²See discussion of § 204 in part II below.

⁹³See § 124 (discussed in part II below). The provision would apply only to four years of purchases, would not cover large units, and has very broad exemptions.

⁹⁴See § 126 (discussed in part II below).

⁹⁵See § 207 (discussed in part II below). The National Academies have addressed this issue on numerous prior occasions. See, e.g., National Research Council, Automotive Fuel Economy: How Far Should We Go? (1992); National Research Council, Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards (2001).

⁹⁶See § 143 (discussed in part II below). For example, among other exemptions, this requirement would not apply to any appliance already subject to any energy conservation standard. It also bars DOE from amending any standard for stand-by power, which locks in standards set now notwithstanding future improvements in technologies and costs.

⁹⁷See § 143 (discussed in part II below). Experts estimate that energy savings could be more than quadrupled by establishing efficiency standards for torchiere lamps, transformers, commercial unit heaters, traffic lights, exit signs, commercial refrigerators, and icemakers. *Id.*

could be achieved with a tighter efficiency standard for central air conditioners.⁹⁸

The probability of inadequate funding is a key flaw for other provisions. Energy efficiency and renewable energy programs are chronically underfunded in the appropriations process.⁹⁹ Thus, even where the programs are potentially useful and the authorizations in H.R. 4 might be helpful, there is no guarantee that the programs will be funded at authorized levels. These include the authorizations for energy efficiency,¹⁰⁰ state energy programs,¹⁰¹ renewable energy,¹⁰² alternative fuel vehicles,¹⁰³ micro-cogeneration,¹⁰⁴ green school buses,¹⁰⁵ energy

⁹⁸See discussion of § 143 in part II below.

⁹⁹For example, former Secretary of Energy Bill Richardson repeatedly emphasized the issue of chronic underfunding for energy conservation and renewable energy at a hearing held by the House Committee on Government Reform in September 2000. See House Committee on Government Reform, Hearing on Potential Energy Crisis in the Winter of 2000 (Sept. 21, 2000) (pre-publication transcript). Secretary Richardson noted that over the past seven years, Congress had funded only 7% of the Clinton Administration's budget for renewable energy. Id. at 85. Between 1995 and 2000 Congress appropriated \$870 million less than the Clinton Administration requested for energy conservation and \$425 million less than the Clinton Administration requested for renewable energy programs. Communications with DOE staff (Sept. 2000). The Bush Administration sharply cut its FY2002 appropriation requests for energy conservation and renewable energy from even the previous inadequate levels of funding. Excluding grants for low-income households, the Administration's budget proposed to cut energy efficiency and renewable energy research and development and technology programs by 27% from FY2001 appropriations. ACEEE, Administration Proposes Deep Cuts in Critical Energy Efficiency Programs (April 9, 2001). In its FY2003 appropriations request, the Administration proposed to cut funding for energy conservation programs by 1.2%. U.S. Department of Energy, FY 2003 Congressional Budget Request: Budget Highlights (Feb. 2002) (DOE/ME-0008).

¹⁰⁰See §§ 101, 2161 (discussed in part II below).

¹⁰¹See § 131 (discussed in part II below).

¹⁰²See § 2261 (discussed in part II below).

¹⁰³See §§ 2103-2105 (discussed in part II below).

¹⁰⁴See § 2125 (discussed in part II below).

¹⁰⁵See §§ 2142-2144 (discussed in part II below).

conservation,¹⁰⁶ and weatherization.¹⁰⁷

Other provisions have been touted as promoting energy conservation or renewable energy, but actually would increase our use of conventional energy sources or have other unacceptable environmental effects. One egregious example is the CAFE provisions discussed above. In addition, an overly broad tax credit for energy from biomass and landfill gas could be an expensive way to undermine recycling and composting efforts.¹⁰⁸ A provision to promote geothermal leasing on public lands would undermine current environmental protections by limiting the Forest Service's ability to object to a particular lease.¹⁰⁹ Also, H.R. 4's authorization of appropriations for EPA climate change programs includes a number of new limitations that will severely and unnecessarily constrain EPA's flexibility to direct funds where they are most needed.¹¹⁰

A number of provisions in the "conservation" sections of the bill probably will not do much for energy conservation, but appear to help specific industries or other narrow interests. For example, the bill requires an interagency study on using oil bypass filtration technology in automobiles, although energy efficiency experts have not identified this as a priority.¹¹¹ There is a special section authorizing \$18 million for an "advanced building efficiency testbed," which appears designed to go to a specific research institution.¹¹² H.R. 4 also authorizes funding for burning carpets,¹¹³ which seems more likely to help the carpet industry dispose of waste than provide a significant new energy source.

3. <u>Conservation and Renewable Tax Credits Are Insufficient to Balance</u> <u>H.R. 4's Emphasis on Energy Production</u>

The most effective conservation and renewable energy provisions in H.R. 4 are likely to

¹⁰⁷See § 133 (discussed in part II below).

¹⁰⁸See § 3102 (discussed in part II below). Subsidizing burning of biomass and waste disposal in landfills that generate gas through tax credits makes these activities relatively more attractive than recycling and composting.

¹⁰⁹See § 6303 (discussed in part II below).

¹¹⁰See §§ 2172, 2173, 2174, 2176, 2177, 2178 (discussed in part II below).

¹¹¹See §§ 162, 163 (discussed in part II below).

¹¹²See § 125 (discussed in part II below).

¹¹³See § 801 (discussed in part II below).

¹⁰⁶See § 2161 (discussed in part II below).

be the tax credits to help various new technologies penetrate the market. However, the total projected value of these tax credits is dwarfed by the tax credits provided to the oil and gas, coal, nuclear, and utility industries. The total value of tax credits for thermal solar, photovoltaic, biopower, biofuels, landfill gas, fuel cells (excluding fuel cell vehicles), electric vehicles, energy efficiency measures, demand-side management measures, and distributed power generation is \$6.2 billion.¹¹⁴ The total value of the tax credits for oil and gas, coal, nuclear and electric utilities is \$25.2 billion.¹¹⁵

Moreover, the tax breaks for oil and gas, coal, nuclear, and electric utilities are all for mature, established, and profitable industries, which can afford to finance new ventures. These industries already enjoy a substantial competitive advantage over renewable and alternative power, energy efficiency measures and distributed generation.¹¹⁶

¹¹⁵See id.

¹¹⁴See Joint Committee on Taxation, Staff Report (July 18, 2001).

¹¹⁶This disproportionate funding may also just exacerbate the effects of historic discrepancies in federal support for energy technologies. A recent study estimated the total federal support for nuclear energy (encompassing only civilian and commercial, not military expenditures), photovoltaic power, solar thermal power, and wind power over the last 50 years. The report found that nuclear energy received over 95% of these federal subsidies. Marshall Goldberg, *Federal Energy Subsidies: Not All Technologies Are Created Equal*, Renewable Energy Policy Project (July 2000).

II. SECTION-BY-SECTION ANALYSIS

DIVISION A

TITLE I – ENERGY CONSERVATION

Subtitle A-Reauthorization of Federal Energy Conservation Programs

§ 101. AUTHORIZATION OF APPROPRIATIONS

This section authorizes appropriations to DOE in the following amounts for energy efficiency activities under specified statutory authorities:

FY2002\$950,000,000FY2003\$1,000,000,000FY2004\$1,050,000,000FY2005\$1,100,000,000FY2006\$1,150,000,000

Subtitle B–Federal Leadership in Energy Conservation

§ 121. FEDERAL FACILITIES AND NATIONAL ENERGY SECURITY

This section amends the National Energy Conservation Policy Act requirement for energy savings at federal facilities. Under this provision, the required energy use reduction levels are the same as those already required under Executive Order 13123 up through FY2010.¹¹⁷ This provision requires additional conservation by FY2015 and FY2020. Compared to a 1985 baseline of energy consumption per gross square foot, agencies must reduce energy consumption by:

FY1995	10%
FY2000	20%
FY2005	30%
FY2010	35%
FY2015	40%
FY2020	45%

This provision also authorizes \$20,000,000 per year for FY2003-FY2010 for DOE to study and provide grants to accelerate use of unconventional and renewable energy. It also eliminates the loophole that allows agencies not to count any facility they characterize as an "energy intensive facility." In addition, this provision adds a requirement to purchase EnergySTAR products when available. It requires agencies to meter and submeter all federal buildings by October 1, 2004, in accordance with guidelines to be established by DOE, except where metering would be impractical.

¹¹⁷E.O. 13123 was issued by President Clinton on June 3, 1999.

§ 122. ENHANCEMENT AND EXTENSION OF AUTHORITY RELATING TO FEDERAL ENERGY SAVINGS PERFORMANCE CONTRACTS

This section allows use of Energy Savings Performance Contracts (ESPCs) for replacement buildings and water conservation projects. It also extends the authority for use of ESPCs by repealing the current sunset provision.

§ 123. CLARIFICATION AND ENHANCEMENT OF AUTHORITY TO ENTER UTILITY INCENTIVE PROGRAMS FOR ENERGY SAVINGS

This section allows federal agencies to enter utility-run demand-side management programs.

§ 124. FEDERAL CENTRAL AIR CONDITIONER AND HEAT PUMP EFFICIENCY

This section requires agencies acquiring an air conditioner or heat pump with a cooling capacity of less than 65,000 Btu/hour to acquire a unit that meets a 12 seasonal energy efficiency ratio (SEER12) energy efficiency rating. It includes an exemption for impracticability where the energy savings pay-back period would be less than 10 years, or compliance would be cost-prohibitive or inconsistent with discharge of national security functions.

This provision is expected to provide minimal to nil energy savings. The efficiency standard is weaker than the more stringent SEER 13 standard, which the Clinton Administration promulgated but DOE has proposed to roll back. Moreover, this provision would be redundant after 2006, when the national SEER 12 standard will apply, which means that the provision will affect at most four years of purchases.¹¹⁸ In addition, larger facilities, such as office buildings, use units larger than 65,000 Btu/hour, so this would cover only a portion of the purchases in that time frame. Also, the exemption is potentially extremely broad, so it is not clear that any agency would be required to comply.

§ 125. ADVANCED BUILDING EFFICIENCY TESTBED.

This section authorizes \$18,000,000 for FY2002 for DOE to establish an advanced building efficiency testbed program for innovations in building technologies. It designates \$6,000,000 for the lead university (which must meet highly specific criteria), and the rest for other participants.

§ 126. USE OF INTERVAL DATA IN FEDERAL BUILDINGS

This section requires each agency to use by January 1, 2003, to the maximum extent practicable, interval electricity consumption data.

Although the provision ostensibly requires installation of new meters in almost all federal buildings, it does not include either funding for agencies' compliance or an enforcement mechanism. Without funding or enforcement, agencies can take advantage of the exception and

¹¹⁸American Council for an Energy-Efficient Economy (ACEEE), *Estimated Savings from Energy-Efficiency Sections of House Energy Bill* (Aug. 6, 2001) (hereinafter "ACEEE Analysis (Aug. 6, 2001)").

argue that the requirement is not practicable.

§ 127. REVIEW OF ENERGY SAVINGS PERFORMANCE CONTRACT PROGRAM

This section requires DOE to review the Energy Savings Performance Contract (ESPC) program to identify barriers to full utilization, report to Congress, and implement regulatory changes to increase flexibility and effectiveness if consistent with statutory authority. Under the ESPC program, federal agencies contract with private sector firms to implement energy conservation measures at federal facilities. The firms pay for the capital investments and are repaid out of the government's energy cost savings.

§ 128. CAPITOL COMPLEX

This section authorizes \$2,000,000 for the Architect of the Capitol to evaluate the energy infrastructure of the Capitol Complex.

Subtitle C–State Programs

§ 131. AMENDMENTS TO STATE ENERGY PROGRAMS This section authorizes the following sums for state energy programs:

FY2002	\$75,000,000
FY2003	\$100,000,000
FY2004	\$100,000,000
FY2005	\$125,000,000

This section also requires state energy plans to have a goal of increasing efficiency of energy use in the state by at least 25% by 2010 compared to 1990.

§ 132. REAUTHORIZATION OF ENERGY CONSERVATION PROGRAM FOR SCHOOLS AND HOSPITALS

This section amends § 397 of the Energy Policy and Conservation Act to extend the authorization expiration for the energy conservation program for schools and hospitals from 2003 to 2010.

§ 133. AMENDMENTS TO WEATHERIZATION ASSISTANCE PROGRAM This section authorizes the following sums for the Weatherization Assistance program:

FY2002	\$273,000,000
FY2003	\$325,000,000
FY2004	\$400,000,000
FY2005	\$500,000,000

§134. LIHEAP

This section authorizes \$3,400,000,000 per year for FY2001-FY2005 for the low income home energy assistance program (LIHEAP). This provision also requires a GAO study on whether LIHEAP payments discourage energy conservation, the extent to which education could increase

energy conservation in low-income households opting for supplemental income instead of LIHEAP funds, the potential benefits of annual maintenance of HVAC appliances in LIHEAP homes, and the loss of energy conservation that results from structural inadequacies in a structure receiving LIHEAP funds for weatherization.

§ 135. HIGH PERFORMANCE PUBLIC BUILDINGS

This section authorizes such sums as may be necessary for FY2002-FY2010 for DOE to make grants to local government for high performance public buildings, both new and existing, to meet specified improvements in energy uses.

Subtitle D–Energy Efficiency for Consumer Products

§ 141. ENERGY STAR PROGRAM

This section provides explicit statutory authorization for the EnergySTAR program currently being administered by DOE and EPA. EnergySTAR is a program to identify and promote energy efficient products and buildings through labeling products and buildings that meet high energy efficiency standards. DOE and EPA must divide responsibility for the various EnergySTAR programs consistent with the terms of agreements between the two agencies. This provision authorizes such sums as may be necessary for FY2002-FY2006. It also requires DOE and EPA to determine whether EnergySTAR should be extended to cover any of the products listed in this section.

§ 141A. ENERGY SUN RENEWABLE AND ALTERNATIVE ENERGY PROGRAM

This section authorizes \$10,000,000 per year for FY2002-FY2006 to establish an Energy Sun label and program for renewable and alternative energy products and technologies to be administered by EPA and DOE. This is a government-industry partnership program to identify and promote the purchase of renewable and alternative energy products, to recognize companies that purchase such products, and to educate consumers about the environmental and energy security benefits of such products. DOE and EPA must divide responsibilities under the program consistent with the terms of agreements between the two agencies. The agencies must also conduct a study within 18 months of enactment to determine whether to authorize the Energy Sun label for products, technologies, and buildings in various categories, such as energy sources (e.g., passive solar, photovoltaics, wind, geothermal, biomass, distributed generation), types of products (e.g., green power based electric power products), and types of buildings/facilities (e.g., homes, schools, hotels, restaurants, arenas). "Renewable and alternative energy" includes renewable energy sources, hydrogen, fuel cells, cogeneration, combined heat and power, heat recovery and distributed generation.¹¹⁹

§ 142. LABELING OF ENERGY EFFICIENT APPLIANCES

This section requires DOE to make recommendations to the FTC regarding energy efficiency labeling for consumer products not currently required to be labeled. This provision also requires

¹¹⁹See § 121(c).

FTC to require labeling for additional products if it will assist consumers and is technologically and economically feasible. FTC must complete a rulemaking within 15 months of enactment to improve effectiveness of the required label.

This section slightly expands current DOE and FTC authority to require labeling for additional products. However, there is substantial discretion for DOE and FTC to decide whether additional labeling would be feasible and assist consumers. Also, there is no deadline for the FTC to complete the rulemaking for labeling additional products, so citizen enforcement would be extremely difficult.

§ 143. APPLIANCE STANDARDS

(a) Standards for Household Appliances in Standby Mode.

Subsection (a) limits the use of power by "household appliances" in standby mode to one watt. Household appliances are narrowly defined to exclude certain specified items, any product recognized under EnergySTAR, any product that is already subject to any energy conservation standards, and any product where the additional cost is not economically justified. DOE must set a standby standard through rulemaking for analog televisions in lieu of the one watt standard. DOE must exempt any product if the cost of electricity saved would not equal the price increase within seven years. Digital televisions, digital set top boxes, and digital video recorders are exempt from the one watt standard, but DOE must set a standard for these by rule by September 1, 2008. This section also bars DOE from amending any standard established for standby power consumption.

This provision is significantly weaker than the version reported by the Energy and Commerce Committee, reducing its projected savings from 3.5 quads to 1 quad.¹²⁰ The definition of covered household appliances is significantly narrower and exemptions are expanded. The bar on DOE amending any standard for standby power consumption would effectively require congressional action for any improvements in a standby standard. This would apply notwithstanding possible technological improvements, changes in cost-effectiveness, or other factors that might warrant a revision to a standard that would otherwise be within DOE's authority.

(b) Standards for Noncovered Products

This section requires DOE to do a rulemaking to set standards for noncovered products if a product meets the criteria specified in the Energy Policy and Conservation Act¹²¹ and is a major consumer of electricity.

¹²⁰*Id.*; ACEEE, *Estimated Savings from Energy-Efficiency Sections of House Energy Bill* (July 19, 2001). A "quad" is a quadrillion (10 to the 15th power) Btus. For reference, according to the Energy Information Administration, the U.S. is projected to use approximately 2150 quads over the 2002-2020 period.

¹²¹42 U.S.C. 6292(b)(1).

(c) Consumer Education on Energy Efficiency Benefits of Air Conditioning, Heating and Ventilation Maintenance

This section authorizes \$5,000,000 for FY2002 and FY2003 for DOE to conduct a campaign to educate consumers about the energy they could save by maintaining their air conditioning and heating systems.¹²² It encourages DOE to support programs sponsored by trade and professional energy efficiency organizations.

(d) Efficiency Standards for Furnace Fans, Ceiling Fans, and Cold Drink Vending Machines This section requires DOE to set testing requirements, energy efficiency standards, and labeling requirements for furnace fans, air conditioning and heat pump circulation fans, ceiling fans, and cold drink vending machines.

Experts estimate that standards for these three products will save three quads of energy between 2002 and 2020.¹²³ However, the bill fails to include a requirement to set standards for torchieres, transformers, commercial unit heaters, traffic lights, exit signs, commercial refrigerators, and ice-makers, which would save an additional 11 quads of energy.¹²⁴

H.R. 4 also fails to counter the Bush Administration's proposed rollback of the energy efficiency standard for air conditioners. DOE promulgated a SEER 13 standard for central air conditioners on January 22, 2001, but has proposed to withdraw that standard and replace it with a less stringent SEER 12 standard.¹²⁵ An amendment designed to mandate the SEER 13 standard in H.R. 4 was rejected in the Energy and Commerce Committee.

EPA and others strongly support retention of the SEER 13 standard.¹²⁶ DOE itself estimates the SEER 13 standard would result net benefits to the consumer of approximately \$1 billion by 2020.¹²⁷ In comments on the proposed rule, EPA noted that a SEER 13 standard would produce significantly greater reductions in emissions of air pollutants such as nitrous oxides (NOx) and

 124 *Id*.

¹²⁵66 FR 38822 (July 25, 2001).

¹²⁶Letter to Brenda Edwards-Jones, U.S. Department of Energy from Linda J. Fisher, Deputy Administrator, U.S. Environmental Protection Agency (Oct. 19, 2001).

¹²⁷66 FR 38822 (July 25, 2001); Letter to Brenda Edwards-Jones, U.S. Department of Energy from Linda J. Fisher, Deputy Administrator, U.S. Environmental Protection Agency (Oct. 19, 2001).

¹²²According to Legislative Counsel, this authorizes a total of \$5,000,000 to be appropriated over the two year period of FY2002 and FY2003.

¹²³ACEEE Analysis (Aug. 6, 2001).

carbon dioxide.¹²⁸ EPA also pointed out a number of ways in which the DOE analysis overstates the regulatory burden on manufacturers, mischaracterizes the current availability of the SEER 13 technology, understates the savings benefits of the SEER 13 standard, and over and underestimates certain distributional inequities in terms of the costs and benefits of a SEER 13 standard.¹²⁹ Experts estimate that adopting a SEER 13 standard would produce total net savings for consumers of \$6.3 billion.¹³⁰

Subtitle E–Energy Efficient Vehicles

§ 151. HIGH OCCUPANCY VEHICLE EXCEPTION

This section allows a state to allow hybrid and vehicles fueled by alternative fuel to drive in HOV lanes.

It appears that vehicles "fueled by an alternative fuel" covers dual-fuel vehicles, which are capable of running on alternative fuels but are almost always actually run on gasoline. Although many consumers are unaware the vehicle they are driving has dual-fuel capabilities, there are actually millions of dual-fuel vehicles on the road today. Federal law provides manufacturers with fuel economy credits for adding dual-fuel capability to vehicles. Manufacturers have taken advantage of this provision, and many SUVs are now capable of running on either gasoline or ethanol (e.g., most Chrysler minivans, and some Chevrolet S-10 pickups and Ford Windstar minivans). As a result, this provision would allow low fuel efficiency and relatively high polluting vehicles, running on gasoline, to drive in HOV lanes.¹³¹

This provision defines "hybrid vehicle" so broadly as to include vehicles with some hybrid technology but still with poor fuel economy and relatively high emissions. For example, DaimlerChrysler plans to introduce a hybrid Dodge Durango in 2003 that will still get less than 19 miles per gallon.¹³² Automakers (including GM, Ford and Chrysler) are also planning to

 128 *Id*.

 129 *Id*.

¹³⁰Appliance Standards Awareness Project, *The Cost of Rolling Back the AC Standard* (May 1, 2001) (available online at http://www.standardsasap.org/rollback.htm). This estimate is based on an analysis done by Lawrence Berkeley National Laboratories. *Id*.

¹³¹Ethanol Plan Fails to Reduce Use of Gasoline, New York Times (June 21, 2001).

¹³²Mileage estimate is for combined city/highway. *See Tax Deal in Works for 'Hybrids,'* Times Union, A8 (Aug. 28, 2001); DaimlerChrysler, *Durango to Get Patented Through-the-Road Hybrid Powertrain* (October 26, 2000) (available online at http://www.daimlerchrysler.com/index_e.htm).

introduce "mild" or "soft" hybrids, nicknamed "mybrids."¹³³ These include a battery and electric motor to take some of the load off the gasoline engine, but they will achieve fuel economy gains of only around 15%.¹³⁴ This means that a vehicle that otherwise would achieve 12 miles per gallon would instead be closer to 14 miles per gallon. This provision would allow these large SUVs with a minimal amount of hybrid technology and very poor fuel economy to drive in HOV lanes.

§ 152 RAILROAD EFFICIENCY

This section authorizes the following sums for DOE to establish a public-private partnership for development and demonstration of locomotion technologies that increase fuel economy and reduce emissions:

FY2002	\$25,000,000
FY2003	\$30,000,000
FY2004	\$35,000,000

The partnership is with railroad carriers, locomotive manufacturers, and a private sector center for railroad technology that is owned by the Federal Railroad Administration.

§ 153. BIODIESEL FUEL USE CREDITS

This section amends the Energy Policy Act of 1992 (EPAct) to provide that credits for purchase of biodiesel fuel must be counted as credits toward the requirement that a certain percentage of vehicles acquired for fleets be alternative fuel vehicles.

§ 154. MOBILE TO STATIONARY SOURCE TRADING

This section requires EPA to review policies for mobile to stationary source trading under the Clean Air Act. EPA must determine whether such trading can increase flexibility in achieving air quality and use of alternative fuel and advanced technology vehicles.

Mobile to stationary trading is a theoretically legitimate way to achieve air quality, as long as the emissions from the two categories of sources are fungible. However, these programs are difficult to implement in a way that ensures that the emissions reductions are real, quantifiable, and verifiable. Without stringent precautions, mobile to stationary source trading programs could open loopholes in Clean Air Act requirements.

Subtitle F–Other Provisions

§ 161. REVIEW OF REGULATIONS TO ELIMINATE BARRIERS TO EMERGING ENERGY TECHNOLOGY.

 134 *Id*.

¹³³Hybrids Are Headed for Main Street, Business Week, 34 (July 9, 2001).

This section requires agencies to review their regulations to identify those that act as a barrier to market entry for emerging energy-efficient technologies.

§ 162. ADVANCED IDLE ELIMINATION SYSTEMS

This section requires EPA to review and update Clean Air Act emissions models to reflect emissions from extended idling of heavy-duty trucks. It also requires EPA to revise regulations to give appropriate credit for use of advanced idle elimination systems.

§ 163. STUDY OF BENEFITS AND FEASIBILITY OF OIL BYPASS FILTRATION TECHNOLOGY

This section requires DOE and EPA to study oil bypass filtration technology in motor vehicle engines and report to congressional committees.

§ 164. GAS FLARE STUDY

This section requires DOE to report to Congress on the economic feasibility of installing cogeneration facilities using excess gas flares at petrochemical facilities.

§ 165. TELECOMMUTING STUDY

This section requires DOE to report to Congress and the President on the energy implications of widespread telecommuting in the U.S.

TITLE II – AUTOMOBILE FUEL ECONOMY

§ 201. AVERAGE FUEL ECONOMY STANDARDS FOR NONPASSENGER AUTOMOBILES

This section requires DOT to prescribe CAFE standards for nonpassenger automobiles (SUVs, minivans and light trucks) manufactured in model years 2004-2010 that will reduce the amount of gasoline that those vehicles would have used in those years by five billion gallons.

The effect of this provision on gasoline consumption is more than offset by the loophole provided in § 203, discussed below. Moreover, a savings of five billion gallons is an insignificant quantity in the context of total petroleum use. During the period from 2004-2010, total U.S. consumption of petroleum is projected to be 2.27 trillion gallons of petroleum.¹³⁵ Five billion gallons amounts to only a 0.22% reduction in projected petroleum use.¹³⁶ This is estimated to equate to raising the CAFE standard for these vehicles by less than one mile per

¹³⁵Analysis of the Burr Amendment to the Corporate Average Fuel Economy (CAFE) Law, prepared by Rep. Henry A. Waxman (Aug. 1, 2001).

 $^{^{136}}$ *Id*.

gallon (mpg).¹³⁷ The current standard for nonpassenger automobiles is 20.7 mpg.

This provision also appears to alter the standard-setting process for light trucks, which may hinder advances in vehicle technology. The existing language requires DOT to set the "maximum feasible" fuel economy level that the manufacturers can achieve for each model year. It is clear that a one mile per gallon increase in the current standard does not represent the "maximum feasible" fuel economy for light trucks now, let alone in 2010. By directing the Secretary how to exercise his authority under the existing provision, the new language appears to supplant the existing directive for model years 2004-2010 and significantly weaken the CAFE requirements.

In addition, the provision creates incentives for greater reliance on diesel vehicles, which emit substantially more air pollution than gasoline vehicles. Even without this provision, the auto manufacturing industry has indicated that they intend to expand the use of diesel engines in the coming years. Under this provision, the goal of reducing anticipated gasoline consumption by five billion gallons could be achieved simply by increasing the proportion of diesel-powered, rather than gasoline-powered, light trucks.

This provision does not direct any increase in the CAFE standards for passenger cars, which make up about half of the new vehicles sold in the United States.

§ 202. CONSIDERATION OF PRESCRIBING DIFFERENT AVERAGE FUEL ECONOMY STANDARDS FOR NONPASSENGER AUTOMOBILES

This section requires that in setting CAFE standards for nonpassenger automobiles, DOT must consider establishing a weight-based system and setting different CAFE standards for different weight classes. DOT must also consider National Academy of Sciences (NAS) recommendations.

A weight-based approach could eliminate the incentives for advanced construction technologies and materials by assuming that the weight of light trucks cannot be reduced. Automakers have been learning that safer and more fuel efficient vehicles can be manufactured using lighter weight materials such as aluminum and composite materials to make large but light vehicles, or through advanced engineering approaches such as unibody construction, which can produce lighter and structurally sound frames.¹³⁸ Under the current system, manufacturers have incentives to deploy these weight reduction technologies and materials, because all light duty trucks fall under a single CAFE standard. This provision encourages DOT to remove this important incentive.

¹³⁷Union of Concerned Scientists, *Memorandum Re Fuel Economy Provision Now in the Energy and Commerce Bill* (July 16, 2001).

¹³⁸See Union of Concerned Scientists, *Drilling in Detroit*, 58 (2001); *The Composite Solution*, Washington Post, A17 (Aug. 21, 2001).

§ 203. DUAL FUELED AUTOMOBILES

This section extends the CAFE credit for manufacture of dual-fuel vehicles to 2008 by law and allows a further extension until 2012. The credit is now due to expire in 2004.

Manufacturers have made 1.2 million dual-fuel vehicles to date, but almost all of these are run on gasoline.¹³⁹ Only 101 of the 176,000 service stations in the U.S. sell ethanol, and of these, there are only two stations on the East Coast and none on the West Coast.¹⁴⁰ Many vehicle owners are not even aware that their vehicles contain a \$200 sensor that allows them to burn ethanol.¹⁴¹ The vehicles include most Chrysler minivans and some Chevrolet S-10 pickups, Ford Taurus sedans, and Ford Windstar minivans.¹⁴²

The dual-fuel credits have allowed the automakers to reduce the average fuel economy of all vehicles they sell by five-tenths to nine-tenths of a mile per gallon.¹⁴³ According to a draft report prepared by the Bush Administration, continuing the credit program from 2005 to 2008 will increase gasoline consumption by nine billion gallons.¹⁴⁴ This would more than outweigh any savings produced by the § 201 directive to reduce consumption by five billion gallons.

Experts estimate that this provision would *increase* energy use over the 2002-2020 period by 2.0 quads.¹⁴⁵

§ 204. FUEL ECONOMY OF THE FEDERAL FLEET OF AUTOMOBILES

This section requires agencies to procure vehicles so that by October 2003 the average fuel economy of an agency's fleet of new automobiles is at least one mpg higher than its 1999 baseline of fuel economy for new vehicle acquisitions. By October 2005 an agency's new vehicle fuel economy must be at least three mpg higher than the baseline.

While it is appropriate for the federal government to demonstrate leadership in energy conservation, this provision is unlikely to have any effect. These requirements are slightly less stringent than those currently in place under Executive Order 13149, which requires agencies to

¹³⁹ Ethanol Plan Fails to Reduce Use of Gasoline, New York Times, A1 (June 21, 2001).
140 Id.
141 Id.
142 Id.
¹⁴³ <i>Id</i> .
144 Id.
¹⁴⁵ ACEEE Analysis (Aug. 6, 2001).

meet a one mpg improvement in new vehicle fuel economy by October 2002.¹⁴⁶ Moreover, as long as national fuel economy standards are held constant, the overall fuel economy of the nationwide fleet will not be affected by changes in government purchases. Essentially, this would just shift cleaner vehicles from other consumers to the federal government. Also, the required improvements are sufficiently small that they probably will not drive the federal government to purchase the most fuel efficient vehicles. Thus, this provision is unlikely to help establish a market for advanced technologies or highly fuel efficient vehicles.

§ 205 HYBRID VEHICLES AND ALTERNATIVE VEHICLES

This section requires at least 5% of vehicles acquired for federal fleets to be alternative fueled vehicles or hybrid vehicles in FY2004 and FY2005, and at least 10% in FY2006 and thereafter. This requirement is in addition to the current requirement under EPAct that at least 75% of vehicles acquired for federal fleets must be alternative fueled vehicles.

This provision is unlikely to produce significant environmental benefits. A number of agencies have failed to meet the existing EPAct requirement to acquire alternative fuel vehicles, although apparently most agencies are making progress toward the EPAct goal.¹⁴⁷ Moreover, the vast majority of the vehicles that agencies have acquired are dual-fuel vehicles, and these are generally run on gasoline. This provision fails to require acquisition of dedicated alternative fuel vehicles, and it applies the flawed definition of hybrid vehicles used under § 151 (see discussion above).

§ 206. FEDERAL FLEET PETROLEUM-BASED NONALTERNATIVE FUELS

This section requires agencies' federal fleets to reduce the amount of gasoline purchased from 2003 through 2009 from the amount purchased over a comparable period, so as to achieve levels of gasoline use "which reflect total reliance by such fleets on the consumptive use of alternative fuels consistent with" the percentage acquisition requirements under the Energy Policy Act of 1992. It authorizes such sums as may be necessary.

The goal of getting federal alternative fuel vehicles to run on alternative fuels is appropriate. However, the drafting, and hence the effects, of this provision are unclear. It is also unclear how this provision would interact with the existing requirement under Executive Order 13149 for agencies to reduce their fleets' annual petroleum consumption by at least 20% from 1999 levels by the end of FY2005.¹⁴⁸

 147 *Id*.

¹⁴⁶Executive Order 13149, *Greening the Government Through Federal Fleet and Transportation Efficiency* (April 21, 2000).

¹⁴⁸See Executive Order 13149 (April 21, 2000).

§ 207. STUDY OF FEASIBILITY AND EFFECTS OF REDUCING USE OF FUEL FOR AUTOMOBILES

This section requires an NAS study and report to Congress on the feasibility of significantly reducing fuel used for motor vehicles by model year 2010. The study must examine alternatives to CAFE, the potential of fuel cell technology, and the effects of such a reduction on gasoline supplies, the auto industry, auto safety, and air quality.

TITLE III – NUCLEAR ENERGY

§ 301 LICENSE PERIOD

This section amends § 103 of the Atomic Energy Act of 1954 to provide that the 40 year term for a nuclear reactor license begins when the NRC finds that the "acceptance criteria" for a combined construction and operation reactor license have been met, i.e., the finished plant conforms to the license terms.¹⁴⁹

§ 302 COST RECOVERY FROM GOVERNMENT AGENCIES

This section amends § 161 of the Atomic Energy Act to authorize the NRC to assess and collect fees from federal agencies in return for services rendered by the Commission, rather than recovering these costs through the annual fees assessed to other licensees (such as power reactors).¹⁵⁰

§ 303 DEPLETED URANIUM HEXAFLUORIDE

This section extends for three years (to 2005) the existing "set-aside" in P.L. 105-204 of \$373 million in the United States Enrichment Corporation Funds for construction of two depleted uranium hexafluoride conversion plants.¹⁵¹

§ 304 NUCLEAR REGULATORY COMMISSION MEETINGS

This section requires the NRC to record the proceedings when a quorum gathers to discuss official business, notify the public, and make a transcript available upon request, except to the extent public disclosure is exempted or prohibited by law. This does not cover meetings subject to the Government in the Sunshine Act (requiring regulatory body meetings to be conducted in public session) or meetings exempted from such requirements (e.g., due to national security or trade secret disclosure).

 150 *Id*.

¹⁵¹Committee on Energy and Commerce, Democratic Staff, *Memorandum on July 17*, 2001, *Markup of the "Energy Advancement and Conservation Act of 2001* (July 16, 2001) (hereinafter "Democratic Staff Memorandum (July 16, 2001)").

¹⁴⁹Committee on Energy and Commerce, Democratic Staff, *Memorandum on July 10*, 2001, *Markup of the "Energy Advancement and Conservation Act of 2001* (July 10, 2001) (hereinafter "Democratic Staff Memorandum (July 10, 2001)").

§ 305 COOPERATIVE RESEARCH AND DEVELOPMENT AND SPECIAL DEMONSTRATION PROJECTS FOR THE URANIUM MINING INDUSTRY This section authorizes \$10,000,000 per year for FY2002, FY2003, and FY2004 for cooperative research and development and demonstration projects related to uranium mining, in particular, in situ leaching mining technologies.

In situ leach uranium mining is opposed by environmental interests as a particularly dangerous technology. It leaches radioactive uranium and other toxic chemicals into groundwater that is used in many areas as drinking water, and it poses a major public health threat for communities surrounding the mines.¹⁵²

§ 306. MAINTENANCE OF A VIABLE DOMESTIC URANIUM CONVERSION INDUSTRY This section authorizes \$800,000 for a research and development contract with "the Nation's sole remaining uranium converter" to improve the environmental and economic performance of U.S. uranium conversion operations.

The U.S. uranium converter is ConverDyn, a general partnership between affiliates of Honeywell and General Atomics.¹⁵³ Honeywell International gave \$243,000 in PAC money in the 1999-2000 election cycle, of which 68% went to Republicans.¹⁵⁴ General Atomics gave \$404,116 in PAC money in the 1999-2000 election cycle, of which 59% went to Republicans.

§ 307. PADUCAH DECONTAMINATION AND DECOMMISSIONING PLAN

This section requires DOE to prepare and submit to Congress a plan for the decontamination and decommissioning of DOE's surplus facilities at the Paducah Gaseous Diffusion Plant and the remediation of DOE Material Storage Areas at the plant. The plan must rank health and safety risks and identify funding requirements.

§ 308. STUDY TO DETERMINE FEASIBILITY OF DEVELOPING COMMERCIAL NUCLEAR ENERGY PRODUCTION FACILITIES AT EXISTING DEPARTMENT OF ENERGY SITES

This section requires DOE to study and report to Congress on the feasibility of developing commercial nuclear plants at existing DOE sites.

Difficulty in siting new nuclear plants due to local opposition is a major barrier to new construction. This provision effectively encourages DOE to help the nuclear industry site new

¹⁵²Friends of the Earth, Fact Sheet: Nuclear Power Back from the Dead? (July 2001).

¹⁵³ConverDyn has a factory based in Metropolis, IL, and an office in Denver, CO (information available online at http://www.ga.com/converdyn/).

¹⁵⁴Center for Responsive Politics (information available online at http://www.opensecrets.org/industries/index.asp).
commercial plants at federal sites.

§ 309. PROHIBITION OF COMMERCIAL SALES OF URANIUM BY THE UNITED STATES UNTIL 2009

This section prohibits the U.S. government from selling or transferring its uranium inventories until 2009, with some exceptions. After March 23, 2009, the U.S. government may not sell more than 3,000,000 pounds of U_3O_8 per year.

This provision effectively establishes substantial price supports for the uranium mining industry, which opposes the federal government's sale of uranium on the grounds that the additional supplies will sharply reduce prices.¹⁵⁵

TITLE IV – HYDROELECTRIC ENERGY

§ 401. ALTERNATIVE CONDITIONS AND FISHWAYS

This section amends § 4 of the Federal Power Act to require resource agencies to consider alternatives to the mandatory conditions and fishway prescriptions they would impose on hydroelectric power projects during a licensing proceeding.¹⁵⁶ The provision allows the license applicant to propose an alternative condition. The agency must accept the alternative if the applicant provides substantial evidence that the alternative would provide no less environmental or fish protection and would either cost less or improve electricity production, compared to the mandatory condition.¹⁵⁷ The Departments of Interior (DOI), Commerce and Agriculture must establish processes by rule to resolve conflicts under this provision.¹⁵⁸

§ 402. FERC DATA ON HYDROELECTRIC LICENSING

This section requires FERC to revise its data collection procedures related to the hydroelectric licensing process. The procedures should provide FERC with more complete and accurate information on the parties' time and costs in the licensing process. FERC must report its progress to congressional committees.

TITLE V – FUELS

§ 501. TANK DRAINING DURING TRANSITION TO SUMMERTIME RFG This section requires EPA to conduct a rulemaking to determine whether to modify the

¹⁵⁵See Wilson's Plans To Aid Uranium Industry Called Corporate Welfare, Albuquerque Journal, A5 (July 18, 2001); Pace Local Rejects USEC Gambit To Tie Contract To HEU Deal; House Okays Limits on U.S. Uranium Sales, Nuclear Fuel, 1 (Aug. 6, 2001).

¹⁵⁶Democratic Staff Memorandum (July 10, 2001).

 157 *Id*.

 158 *Id*.

regulations regarding the transition to summertime reformulated gasoline. The transition should be conducted so as to minimize gasoline supply and price disruptions and maximize flexibility for inventory management, consistent with Clean Air Act goals. Any modifications must be effective by March 2, 2002 (60 days before the beginning of the 2002 high ozone season).

§ 502. GASOLINE BLENDSTOCK REQUIREMENTS

This section requires EPA to conduct a rulemaking to determine whether to modify regulatory requirements related to gasoline blendstocks. The goal is to facilitate gasoline movement between different regions of the country and improve refiners' ability to respond to regional gasoline shortages. Any modifications must be effective by March 2, 2002 (60 days before the beginning of the 2002 high ozone season).

§ 503. BOUTIQUE FUELS

This section requires EPA and DOE to jointly conduct a study of all federal, state, and local requirements regarding motor vehicle fuels. The study must analyze the effect of the variety of requirements on the price and availability of fuels, refineries, the distribution system, and air quality. The study must also analyze the feasibility of developing national or regional fuel specifications that would enhance flexibility in fuel distribution, reduce price volatility and costs, meet air quality goals, and increase gasoline market liquidity. EPA and DOE must report to Congress by December 31, 2001 with recommendations for legislative and administrative actions.

§ 504. FUNDING FOR MTBE CONTAMINATION

This section authorizes \$200,000,000 from the Leaking Underground Storage Trust Fund to EPA for assessment and corrective action related to MTBE contamination of groundwater.

TITLE VI – RENEWABLE ENERGY

§ 601. ASSESSMENT OF RENEWABLE ENERGY RESOURCES

This section requires DOE to publish an annual assessment by the national laboratories of all the renewable energy resources available in the U.S.

§ 602. RENEWABLE ENERGY PRODUCTION INCENTIVE

This section amends § 1212 of EPAct, which authorizes DOE to make incentive payments for electricity produced from renewable sources. This provision bars DOE from prioritizing funding for generators based on the type of renewable energy source. It also adds landfill gas to the renewable energy sources currently eligible for support (now solar, wind, biomass and geothermal). The applicability is extended to facilities that begin operation before October 1, 2013, and the sunset is extended until September 30, 2023.

This removes DOE's discretion to give more support to some renewable energy sources than others based on the technological and economic potential, need for support, environmental benefits, or other factors that DOE finds appropriate.

§ 603. STUDY OF ETHANOL FROM SOLID WASTE LOAN GUARANTEE PROGRAM

This section requires DOE to study and report to Congress on the feasibility of guaranteeing private-sector loans for facilities for converting municipal solid waste and sewage sludge into fuel ethanol.

§ 604. STUDY OF RENEWABLE FUEL CONTENT

This section requires EPA and DOE to jointly study and report to Congress on the feasibility of requiring motor vehicle fuel to contain a specified amount of renewable fuel.

TITLE VII – PIPELINES

§ 701. PROHIBITION ON CERTAIN PIPELINE ROUTE

This section bars construction of a natural gas pipeline from Prudhoe Bay following a specified northern route.

This provision would encourage use of the proposed southern route for a natural gas pipeline from Alaska along an existing highway, rather than the proposed northern route, which would run offshore from the Arctic National Wildlife Refuge. This provision is supported by the environmental community.

§ 702. HISTORIC PIPELINES

This section amends the Natural Gas Act to provide that natural gas pipelines are not eligible for inclusion on the National Register of Historic Places unless FERC has permitted the pipeline to be abandoned or the owner gives written consent.

The National Historic Preservation Act requirements potentially apply very broadly to sites, buildings, and structures. In permitting modification of a pipeline that is eligible for inclusion on the National Register of Historic Places, FERC currently requires a review and documentation process and does not use its otherwise available expedited permitting procedures. El Paso Corp., a major contributor to Republican campaigns, has recently protested FERC's policy. This provision would eliminate the review and documentation process and allow pipeline companies to use FERC's expedited permitting procedures.

TITLE VIII – MISCELLANEOUS PROVISIONS

§ 801. WASTE REDUCTION AND USE OF ALTERNATIVES

This section authorizes \$275,000 in FY2002 for DOE to grant to a "research-intensive institution of higher learning with demonstrated expertise in the fields of fiber recycling and logistical modeling of carpet waste collection and preparation" to study the feasibility of burning post-consumer carpet in cement kilns as an alternative energy source.

This provision was added at the request of Rep. Nathan Deal of Georgia, who represents the "carpet capital of the world," Dalton, GA. It is supported by the Carpet and Rug Institute. Rep.

Deal would like Georgia Tech to receive the grant.¹⁵⁹

§ 802. ANNUAL REPORT ON UNITED STATES ENERGY INDEPENDENCE

This section requires DOE to include in an annual report a section evaluating the progress made toward a goal of not more than 50% dependence on foreign oil sources by 2010. DOE must identify legislative and administrative actions to meet the goal and conduct a cost/benefit analysis of the options.

§ 803. STUDY OF AIRCRAFT EMISSIONS

This section requires DOT and EPA to conduct a joint study and report to congressional committees on the impact of aircraft emissions on air quality in nonattainment areas. The study must recommend a plan to maintain data on aircraft emissions and recommend how to reduce emissions.

DIVISION B

§ 2004. GOALS

This section directs DOE to conduct a balanced portfolio of energy research, development, demonstration, and commercial application programs to meet specified goals in the areas of energy efficiency, renewable energy sources, nuclear power, fossil energy, and science.

§ 2007. BALANCE OF FUNDING PRIORITIES

This section expresses the sense of the Congress that the funding of the programs authorized by titles I through IV of division B should remain proportional, regardless of the total funding authorized.

TITLE I – ENERGY CONSERVATION AND ENERGY EFFICIENCY

Subtitle A–Alternative Fuel Vehicles

§ 2102. DEFINITIONS

This section defines alternative fuel vehicle to exclude dual-fuel vehicles (which can be operated on gasoline and an alternative fuel).

§§ 2103-2105. PILOT PROGRAM, REPORTS TO CONGRESS, AND AUTHORIZATION OF APPROPRIATIONS

These sections authorize \$200,000,000 for a competitive grant program to states, local governments, and metropolitan transportation authorities to acquire and support alternative fuel vehicles and ultra-low sulfur diesel vehicles. Grants are limited to a maximum of \$20,000,000 and require a 50% cost-share per project. DOE must evaluate the program and report to congressional committees.

¹⁵⁹*Washington Wire*, Wall Street Journal, A1 (Aug. 24, 2001).

Subtitle B–Distributed Power Hybrid Energy Systems

§§ 2121-2123. FINDINGS, DEFINITIONS, AND STRATEGY

These sections require DOE to develop, transmit to Congress, and implement a strategy for use of systems that use two or more distributed power sources. "Distributed power sources" are independent electric energy sources of 10 megawatts or less, including reciprocating engines, micro turbines, fuel cells, solar electric systems, wind energy systems, biopower systems, geothermal power systems and combined heat and power systems.

§ 2124. HIGH POWER DENSITY INDUSTRY PROGRAM

This section requires DOE to develop and implement a comprehensive research, development, demonstration, and commercial application program to improve energy efficiency, reliability, and environmental responsibility in high power density industries, such as data centers, server farms, telecommunications facilities, and heavy industry.

§ 2125. MICRO-COGENERATION ENERGY TECHNOLOGY

This section authorizes \$20,000,000 for grants to private sector consortia for development of micro-cogeneration energy technology.

§§ 2126.-2127. PROGRAM PLAN AND REPORT

These sections require DOE to prepare and transmit to Congress a five-year program plan to guide activities on distributed power, high power density industry, and micro-cogeneration technology. DOE must submit a progress report to Congress every two years.

§ 2128. VOLUNTARY CONSENSUS STANDARDS

This section requires DOE, in consultation with the National Institute of Standards and Technology, to work with the Institute of Electrical and Electronic Engineers on developing voluntary consensus standards for distributed energy systems, including standards for connection with electricity distribution systems.

Voluntary standards could be helpful, if developed, but numerous entities have called for mandatory interconnection standards as a necessary for increased use of distributed generation.

Subtitle C–Secondary Electric Vehicle Battery Use

§ 2132. ESTABLISHMENT OF SECONDARY ELECTRIC VEHICLE BATTERY USE PROGRAM

This section authorizes the following amounts for DOE to provide up to a 50% cost-share for research, development, and demonstration projects on the secondary use of batteries that were originally used in transportation:

FY2002	\$1,000,000
FY2003	\$7,000,000
FY2004	\$7,000,000

Subtitle D–Green School Buses

§ 2142. ESTABLISHMENT OF PILOT PROGRAM

This section requires DOE to establish a competitive grant program for demonstration and commercial application of alternative fuel school buses and ultra-low sulfur diesel school buses. Grants would go to local governments for acquisition of buses meeting specified criteria and alternative fuel infrastructure.

§ 2143. FUEL CELL BUS DEVELOPMENT AND DEMONSTRATION PROGRAM

This section authorizes DOE to use up to \$25,000,000 between FY2002 and FY2006 for cooperative agreements with private sector developers of fuel cell-powered school buses. DOE must submit a progress report to Congress.

§ 2144. AUTHORIZATION OF APPROPRIATIONS

This section authorizes the following amounts for the school bus pilot program under § 2142 and the fuel cell bus program under § 2143:

FY2002	\$40,000,000
FY2003	\$50,000,000
FY2004	\$60,000,000
FY2005	\$70,000,000
FY2006	\$80,000,000

Subtitle E–Next Generation Lighting Initiative

§§ 2153-2155. NEXT GENERATION LIGHTING INITIATIVE, STUDY, AND GRANT PROGRAM

These sections authorize DOE to establish the "Next Generation Lighting Initiative" to research, develop and demonstrate advanced lighting technologies. DOE must study strategies for development and commercial application of advanced lighting technologies in consultation with other agencies. DOE is also authorized to make grants to private sector organizations for research, development, and demonstration projects.

Subtitle F-Department of Energy Authorization of Appropriations

§ 2161. AUTHORIZATION OF APPROPRIATIONS

This section authorizes the following amounts to DOE for subtitle B, subtitle C, subtitle E, and Energy Conservation operations and maintenance:

FY2002	\$625,000,000
FY2003	\$700,000,000
FY2004	\$800,000,000

Subtitle G–Environmental Protection Agency Office of Air and Radiation Authorization of Appropriations

§ 2172. AUTHORIZATION OF APPROPRIATIONS

This section authorizes the following amounts for EPA's Office of Air and Radiation Climate Change Protection Programs:

FY2002	\$121,942,000
FY2003	\$126,800,000
FY2004	\$131,800,000

It includes specified breakdowns for programs relating to buildings, transportation, industry, carbon removal, state and local climate, and international capacity building.

This provision appears to maintain funding around current levels. The Office of Air and Radiation received \$121,200,000 for climate programs for FY2001. However, although this provision authorizes funds specifically for the Office of Air and Radiation within EPA, appropriations are not currently appropriated for individual EPA offices. Moreover, EPA's current appropriation account structure does not limit the obligation or expenditure of appropriated funds to a particular office within EPA. Thus, this provision might impede EPA's ability to direct funding to the most promising initiatives.

§ 2173. LIMITS ON USE OF FUNDS

This section bars use of funds for selling an article or service unless it is unavailable commercially, and bars use of funds to initiate a request for proposal for a program not authorized by Congress.

This provision may require a specific authorization in statute before funds can be used for a request for proposal. Such a reading could significantly decrease EPA's flexibility and could preclude funding of nonstatutory earmarks.

§ 2174. COST SHARING

This section requires at least 20% nonfederal cost-sharing for research and development programs under this subtitle and at least 50% nonfederal cost-sharing for demonstration or commercial application projects.

Again, this provision reduces EPA's flexibility.

§ 2175. LIMITATION ON DEMONSTRATION AND COMMERCIAL APPLICATIONS OF ENERGY TECHNOLOGY

This requires that EPA provide funding only for demonstration or commercial application of energy technology activities that can reasonably be expected to yield new, measurable benefits in terms of cost, efficiency or performance.

§ 2176. REPROGRAMMING

This section bars EPA from reprogramming funds for a different activity from the activity for which the amounts were appropriated except under limited circumstances. EPA must send Congress a report regarding the proposed action and wait 30 days, and the amount used for the activity may not exceed the lesser of 105% of or \$250,000 above the amount authorized for the activity. No funds appropriated under this subtitle may be used for an item that Congress declined to authorize.

EPA prepares its budget request up to 18 months before actually spending appropriated funds. In fields with rapid technological developments, such as climate change and energy technologies, identifying each specific project and activity that the Agency will want to fund that far in advance is extremely difficult. The reprogramming requirement thus may cause substantial program implementation delays.

§ 2177. BUDGET REQUEST FORMAT

This section requires EPA to provide to relevant congressional committees a detailed justification for budget authorization for activities under this subtitle, including identification of all funding recipients for the past two years and how much they have spent.

This provision would require EPA to prepare a separate second budget justification for activities under this subtitle, which would not be consistent with the budget format EPA uses under the Government Performance and Results Act.

§ 2178. OTHER PROVISIONS

This section requires EPA to notify the appropriate congressional committees at least 15 days before any reorganization of any research, development, demonstration or commercial application activity, project, or program related to energy under the Office of Air and Radiation.

While the specific language is vague, the scope of this requirement appears extremely broad and likely unworkable in terms of Agency management.

Subtitle H–National Building Performance Initiative

§ 2181. NATIONAL BUILDING PERFORMANCE INITIATIVE

This section establishes an interagency group under the Office of Science and Technology Policy to develop and implement a "National Building Performance Initiative" for energy conservation and research and development. The Group must give Congress an implementation plan for reducing the costs of using buildings by 30% by 2020 and an annual progress report. The section also establishes a National Building Performance Advisory Committee to advise on the plan and implementation.

TITLE II – RENEWABLE ENERGY

Subtitle A–Hydrogen

§ 2204. REPORTS TO CONGRESS

This section requires DOE to give Congress biennial progress reports on the activities under this subtitle.

§ 2205. HYDROGEN RESEARCH AND DEVELOPMENT

This section requires DOE to conduct a hydrogen research and development program relating to production, storage, transportation, and use of hydrogen. The provision requires nonfederal cost-sharing of at least 20%, unless it is basic research.

§§ 2206-2209. DEMONSTRATIONS, TECHNOLOGY TRANSFER, COORDINATION AND CONSULTATION, AND ADVISORY COMMITTEE

These sections amend § 105 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 to include a fuel cell bus demonstration program. They also establish a DOE program to accelerate wider application of hydrogen production, storage, transportation, and use technologies, including application in foreign countries. DOE must establish a central point for coordination of all DOE's hydrogen activities and consult with other federal agencies. These provisions establish a National Academies of Sciences and Engineering advisory committee on these activities.

§ 2210. AUTHORIZATION OF APPROPRIATIONS

This section authorizes the following sums (combined authorizations for research and development, advisory committee and demonstrations):

FY2002	\$60,000,000
FY2003	\$70,000,000
FY2004	\$80,000,000
FY2005	\$90,000,000
FY2006	\$100,000,000

§ 2211. REPEAL

This section repeals Title II of the Hydrogen Future Act, which authorized funds for FY1997 and FY1998 for projects to integrate fuel cells with hydrogen production systems.

Subtitle B–Bioenergy

§ 2224. AUTHORIZATION

This section authorizes DOE to conduct research and development, demonstration and commercial application of programs, projects, and activities related to bioenergy.

§ 2225. AUTHORIZATION OF APPROPRIATIONS

This section authorizes the following amounts for biopower and biofuels energy systems:

FY2002	\$99,200,000
FY2003	\$113,900,000
FY2004	\$130,900,000
FY2005	\$150,400,000
FY2006	\$172,800,000

This section authorizes \$49,000,000 per year for integrated bioenergy research and development for FY2002-FY2006. It requires these activities to be coordinated with other related federal programs, and at least \$5,000,000 per year must go to training and education for minority and socially disadvantaged farmers and ranchers.

The bioenergy totals are:

FY2002	\$148,200,000
FY2003	\$162,900,000
FY2004	\$179,900,000
FY2005	\$199,400,000
FY2006	\$221,800,000

Subtitle C–Transmission Infrastructure Systems

§ 2241. TRANSMISSION INFRASTRUCTURE SYSTEMS RESEARCH, DEVELOPMENT, DEMONSTRATION, AND COMMERCIAL APPLICATION

This section requires DOE to implement a comprehensive research and development and application program to ensure the reliability, efficiency, and environmental integrity of electrical transmission systems. This may cover advanced energy technologies and systems, superconducting transmission lines, technologies for significant load reductions, advanced metering, and load management and control technologies.

§§ 2242-2243. PROGRAM PLAN AND REPORT

These sections require DOE, in consultation with other agencies and interests, to send Congress a five-year plan for its program on research, development, and application of electric transmission systems technologies. DOE must give Congress progress reports every two years.

Subtitle D–Department of Energy Authorization of Appropriations

§ 2261. AUTHORIZATION OF APPROPRIATIONS

This section authorizes the following amounts for DOE for renewable energy operation and maintenance:

FY2002	\$535,000,000
FY2003	\$639,000,000
FY2004	\$683,000,000

This includes activities under subtitle C, the amounts under § 2210 for hydrogen and the amounts under § 2225 for bioenergy.

This provision also requires DOE to conduct a research program on wave powered electric generation, and requires DOE to assess and report to Congress on all renewable energy resources available within the U.S.

TITLE III – NUCLEAR ENERGY

Subtitle A–University Nuclear Science and Engineering

§ 2303. DEPARTMENT OF ENERGY PROGRAM

This section establishes a DOE program for human resources in nuclear sciences and engineering. The Office of Nuclear Energy Science and Technology in DOE must support university programs and training reactors. DOE must also send congressional committees a fiveyear plan for implementation of these programs.

§ 2304. AUTHORIZATION OF APPROPRIATIONS

This section authorizes the following sums with specified amounts for various activities required under § 2303:

FY2002	\$30,200,000
FY2003	\$41,000,000
FY2004	\$47,900,000
FY2005	\$55,600,000
FY2006	\$64,100,000

Subtitle B-Advanced Fuel Recycling Technology Research and Development Program

§ 2321. PROGRAM.

This section requires DOE to conduct an advanced fuel recycling technology research and development program for proliferation-resistant fuel recycling technologies. It authorizes \$10,000,000 for FY2002 and such sums as are necessary for FY2003 and FY2004.

This provision reverses the United States's decades-long policy against reprocessing nuclear

fuel.¹⁶⁰ Plutonium is created in nuclear reactors, but is not usable unless it is separated from the spent reactor fuel through reprocessing. Reprocessing produces plutonium that can be used for reactor fuel or for nuclear weapons. To date, substantially more separated weapons-usable plutonium has been produced in civilian than military nuclear programs world-wide.¹⁶¹ Only a portion of this plutonium has been used for reactor fuel, in large part because it is much more expensive than comparable uranium fuel.¹⁶² This surplus weapons-usable material could fall into the hands of terrorists or rogue nations, and the spread of reprocessing technology to non-nuclear states could help them develop military nuclear capabilities.¹⁶³ In addition, reprocessing generates large amounts of highly radioactive waste, and once used, the spent plutonium fuel must still be disposed of, so reprocessing does not solve the waste disposal problem.¹⁶⁴

This provision appears aimed at supporting experimental reprocessing technologies such as accelerator transmutation and pyroprocessing of waste. However, DOE itself estimated that an accelerator transmutation program would cost \$279 billion and take 118 years to process U.S. spent fuel.¹⁶⁵ Critics also note that both of these technologies are highly experimental, as well as cost-prohibitive, and even if they worked, would still produce weapons-usable material that is very difficult to track and safeguard.¹⁶⁶ In addition, plutonium reactor fuel is substantially more toxic than uranium fuel, and an accident involving a power reactor fueled with plutonium would

¹⁶¹Nuclear Control Institute, *The Plutonium Threat* (available online at: http://www.nci.org/index.htm).

¹⁶²Nuclear Reprocessing Sets Off Alarms Again, Washington Post, A03 (July 2, 2001).

¹⁶³*See id.*

¹⁶⁴Paul L. Leventhal, *Viewpoint; Past, Present and Future*, Nuclear Engineering International, 39 (Sept. 30, 2001); Nuclear Control Institute, *Plutonium and Reprocessing* (available online at: http://www.nci.org/index.htm).

¹⁶⁵Department of Energy, A Roadmap for Developing Accelerator Transmutation of Waste (ATW) Technology: A Report to Congress, 7-1, 7-3 (Oct. 1999) (DOE/RW-0519).

¹⁶⁶See Leventhal, supra note 164; Dr. Edwin S. Lyman, Statement: Research on Accelerator Transmutation of Waste and Pyroprocessing Is a Colossal Waste of Taxpayer Money (May 24, 2001) (available online at: http://www.nci.org/index.htm);

¹⁶⁰See, e.g., President Gerald Ford, *Statement on Nuclear Policy* (Oct. 28, 1976); President Jimmy Carter, *Presidential Directive/NSC-8* (March 24, 1977); *see also Nuclear Reprocessing Sets Off Alarms Again*, Washington Post, A03 (July 2, 2001).

be correspondingly significantly more deadly.¹⁶⁷

Subtitle C–Department of Energy Authorization of Appropriations

§ 2341. NUCLEAR ENERGY RESEARCH INITIATIVE

This section requires DOE to conduct a Nuclear Energy Research Initiative to provide grants for nuclear energy research. It authorizes \$60,000,000 for FY2002 and such sums as are necessary for FY2003 and FY2004.

§ 2342. NUCLEAR ENERGY PLANT OPTIMIZATION PROGRAM

This section requires DOE to conduct a Nuclear Energy Plant Optimization research and development program with industry cost-sharing of at least 50% to improve efficiency and productivity of existing nuclear power plants. It authorizes \$15,000,000 for FY2002 and such sums as are necessary for FY2003 and FY2004.

§ 2343. NUCLEAR ENERGY TECHNOLOGIES

This section requires DOE to study "Generation IV" nuclear energy systems to identify promising candidate technologies likely to have specified characteristics. DOE must consult with various entities and report to congressional committees with recommendations. It authorizes \$20,000,000 for FY2002 and such sums as are necessary for FY2003 and FY2004.

§ 2344. AUTHORIZATION OF APPROPRIATIONS

This section authorizes the following amounts for DOE for nuclear energy operation and maintenance under this Title III:

FY2002	\$191,200,000
FY2003	\$199,000,000
FY2004	\$207,000,000

This includes all of the amounts authorized under the previous sections in this title III and other programs.

This section authorizes the following amounts for DOE for specified nuclear energy construction projects:

FY2002	\$1,450,000
FY2003	\$2,700,000
FY2004	\$1,746,000
FY2005	\$2,199,000

¹⁶⁷Edwin S. Lyman, *Public Health Risks of Substituting Mixed-Oxide for Uranium Fuel in Pressurized-Water Reactors*, Science & Global Security, 1 (2000).

TITLE IV – FOSSIL ENERGY

Subtitle A-Coal

§ 2401. COAL AND RELATED TECHNOLOGIES PROGRAMS

This section authorizes the following sums for DOE for research and development relating to coal technologies:

FY2002	\$172,000,000
FY2003	\$179,000,000
FY2004	\$186,000,000

The research and development programs must include various specified technologies, and DOE must fund at least one gasification project.

Subtitle B–Oil and Gas

§ 2421. PETROLEUM-OIL TECHNOLOGY

This section requires DOE to conduct a research and development, demonstration, and commercial application program on petroleum-oil technology to address exploration and production, reservoir management, and environmental protection.

§ 2422. GAS

This section requires DOE to conduct a research and development, demonstration, and commercial application program on natural gas technologies to address exploration and production, infrastructure and environmental protection.

§ 2423. NATURAL GAS AND OIL DEPOSITS REPORT

This section requires DOI to send biennial reports to Congress assessing natural gas and oil deposits at existing drilling sites off the coast of Louisiana and Texas.

§ 2424. OIL SHALE RESEARCH

This section authorizes \$10,000,000 for DOE for FY2002 for research grants on oil shale.

Subtitle C–Ultra-Deepwater and Unconventional Drilling

§ 2443. ULTRA-DEEPWATER PROGRAM

This section requires DOE to establish a program for research, development, and demonstration of ultra-deepwater (deeper than 1,500 meters) natural gas and other petroleum exploration and production technologies.

§ 2444. NATIONAL ENERGY TECHNOLOGY LABORATORY

This section requires the National Energy Technology Laboratory to carry out long-term research programs in new ultra-deepwater and unconventional (heretofore inaccessible or uneconomic formations on land) natural gas and petroleum exploration, production, and environmental mitigation technologies. The lab must also conduct a research and development program for reducing greenhouse gas emissions from these activities.

§ 2445. ADVISORY COMMITTEE

This section requires DOE to establish an advisory committee to advise on implementing this subtitle C (ultra-deepwater and unconventional drilling). The committee must have four members with expertise in ultra-deepwater production, two members with expertise in unconventional production and one member with expertise in greenhouse gas emission reduction and carbon sequestration.

§§ 2446-2448. RESEARCH ORGANIZATION, GRANTS, AND PLAN AND FUNDING

These sections require DOE to solicit proposals and select an entity to create a research organization to award grants for research and development and demonstration of technologies for unconventional and ultra-deepwater exploration and production. Grants may not exceed 50% of project costs, but grants to independent producers may cover up to 90% of project costs. Grants for demonstration projects must be repaid if the technology is successfully commercialized. Sixty percent of the funding for grants must go to industry/research institution consortia formed for conducting these research and development and demonstration activities. The research organization must give DOE an annual plan for approval.

§ 2449. AUDIT

This section requires that an independent commercial auditor report to DOE and congressional committees on whether funds have been spent consistent with this title.

§ 2450. FUND

This section establishes an Ultra-Deepwater and Unconventional Gas Research Fund for allocation by the research organization established under § 2446. It authorizes \$900,000,000 for FY2002-FY2009 for the fund. This is considered a loan from the Treasury to be repaid through royalty income from ultra-deepwater oil and gas leases. This also authorizes for the fund such sums as may be necessary and up to 7.5% of all U.S. royalty income from oil and gas leasing for FY2002-FY2009.

In the absence of this provision, any royalty income from ultra-deepwater leasing would have gone to the Treasury, so there is no actual net repayment of the \$900,000,000. Moreover, current royalty income from oil and gas leasing goes to the Land and Water Conservation Fund and other preservation efforts, so royalty income diverted to the Ultra-Deepwater and Unconventional Gas Research Fund would reduce the funding available for public lands preservation activities. The authorized funding (7.5% of all U.S. royalty income from oil and gas leasing for eight years)

could equal \$3,670,000,000 or more.¹⁶⁸

§ 2451. SUNSET

This section provides that while no additional funds are authorized for this subtitle after FY2009, the research organization authorized under § 2446 continues until it has spent all of the money in the Ultra-Deepwater and Unconventional Gas Research Fund.

Subtitle D–Fuel Cells

§ 2461. FUEL CELLS

This section requires DOE to conduct a research and development, demonstration, and commercial application program for fuel cells. DOE must also establish a demonstration program for commercial, residential, and transportation applications of fuel cell technologies, with a focus on manufacturing production and processes. This authorizes (within the amounts authorized under § 2481) \$28,000,000 per year for FY2002-FY2004.

Subtitle E–Department of Energy Authorization of Appropriations

§ 2481. AUTHORIZATION OF APPROPRIATIONS

This section authorizes the following sums for DOE for operation and maintenance for subtitle B (oil and gas), for subtitle D (fuel cells), and for other DOE programs:

FY2002	\$282,000,000
FY2003	\$293,000,000
FY2004	\$305,000,000

Of these amounts, \$28,000,000 is authorized for fuel cells (under § 2461), while the remaining \$852,000,000 is authorized for oil and gas and other activities related to fossil fuels.

TITLE V – SCIENCE

Subtitle A–Fusion Energy Sciences

§ 2503. PLAN FOR FUSION EXPERIMENT

This section requires DOE to develop a plan for U.S. construction of a magnetic fusion burning plasma experiment. The plan must be reviewed by the National Academy of Sciences and sent to Congress by July 1, 2004. DOE may also develop a plan for U.S. participation in an international burning plasma experiment.

¹⁶⁸This estimate is from Friends of the Earth, based on the last six years of royalty revenues, which have included years of high and low oil prices.

§ 2504. PLAN FOR FUSION ENERGY SCIENCES PROGRAM

This section requires DOE to develop and send to Congress a plan to ensure a strong scientific base for the Fusion Energy Sciences Program.

§ 2505. AUTHORIZATION OF APPROPRIATIONS

This section authorizes the following sums for DOE to develop, but not implement, the fusion energy plans and to carry out the Fusion Energy Sciences Program:

FY2002	\$320,000,000
FY2003	\$335,000,000

DOE may use up to \$15,000,000 per year to establish centers of excellence for fusion science.

Subtitle B–Spallation Neutron Source

§ 2522. AUTHORIZATION OF APPROPRIATIONS

This section authorizes the following amounts for construction of the Spallation Neutron Source:

FY2002	\$276,300,000
FY2003	\$210,572,000
FY2004	\$124,600,000
FY2005	\$79,800,000
FY2006	\$41,100,000

It also authorizes the following sums for other Spallation Neutron Source nonconstruction project costs:

FY2002	\$15,353,000
FY2003-FY2006	\$103,279,000

The Spallation Neutron Source project is designed to be the world's most powerful acceleratorbased facility.¹⁶⁹ It will be a billion-dollar complex located in Oak Ridge, Tennessee.¹⁷⁰ The project is a collaboration of five national laboratories.¹⁷¹

§ 2523. REPORT

This section requires DOE to report on the Spallation Neutron Source as part of the budget

 170 *Id*.

 171 *Id*.

¹⁶⁹GAO, Report Abstract, Department of Energy: Challenges Exist in Managing the Spallation Neutron Source Project (March 3, 1999) (GAO/T-RCED-99-103).

submission.

§ 2524. LIMITATIONS

This section limits the total DOE past and future spending on the Spallation Neutron Source to: \$1,192,700,000 for construction; \$219,000,000 for other project costs; and \$1,411,700,000 for total costs.

Subtitle C-Facilities, Infrastructure, and User Facilities

§ 2542. FACILITY AND INFRASTRUCTURE SUPPORT FOR NONMILITARY ENERGY LABORATORIES

This section requires DOE to implement a least-cost nonmilitary energy laboratory facility strategy and 10-year plan for maintaining, modifying, or closing existing facilities and building new facilities. DOE must report to congressional committees on the plan and budget.

§ 2543. USER FACILITIES

This section requires DOE to use competition in selecting universities and other users of facilities run by the Office of Science at nonmilitary energy laboratories.

Subtitle D-Advisory Panel on Office of Science

§§ 2561-2562. ESTABLISHMENT AND REPORT

These sections require the Director of the Office of Science and Technology Policy within DOE to establish an advisory panel to address concerns about the research supported by the Office of Science, examine alternatives to the existing organizational structure of the office, and make recommendations. The advisory panel must prepare and send a report to congressional committees within nine months of enactment, with comments from the Director and the Secretary.

Subtitle E–Department of Energy Authorization of Appropriations

§ 2581. AUTHORIZATION OF APPROPRIATIONS

This section authorizes \$3,299,558,000 for FY2002 for DOE for operation and maintenance for the Office of Science and Technology Policy. This includes the amounts authorized above for fusion and nonconstruction costs of the spallation neutron source. Of this, \$5,000,000 may go to research on using precious metals in catalysts.

In addition to the authorizations for the spallation neutron source construction, this section authorizes the following sums for construction of various projects:

FY2002	\$56,621,000
FY2003	\$35,829,000
FY2004	\$10,900,000

TITLE VI – MISCELLANEOUS

Subtitle A-General Provisions for the Department of Energy

§ 2601. RESEARCH, DEVELOPMENT, DEMONSTRATION, AND COMMERCIAL APPLICATION OF ENERGY TECHNOLOGY PROGRAMS, PROJECTS AND ACTIVITIES This section contains various provisions regarding authorized activities, the types of agreements DOE may use, protection of information, treatment of inventions, and outreach.

§ 2602. LIMITS ON USE OF FUNDS

This section bars using funds authorized by this division B to award a management contract for a federal energy laboratory without using competitive procedures, unless the Secretary grants a waiver. These funds also may not be used to provide articles or services for sale unless they are not commercially available. This section also bars use of these funds for a request for proposal for a program not authorized by Congress.

§ 2603. COST SHARING

This section mandates that except as otherwise provided, under this division B nonfederal sources must cover at least 20% of project costs for research and development programs, and 50% of project costs for demonstration and commercial application projects. DOE may waive these requirements for basic research or if waiver is necessary and appropriate.

§ 2604. LIMITATION ON DEMONSTRATION AND COMMERCIAL APPLICATION OF ENERGY TECHNOLOGY

This section provides that DOE may fund demonstration and commercial application projects only for technologies that can reasonably be expected to yield new measurable benefits.

§ 2605. REPROGRAMMING

This section bars DOE from reprogramming funds for a different activity from the activity for which the amounts were appropriated, except under limited circumstances. DOE must send Congress a report regarding the proposed action and wait 30 days, and the amount used for the activity may not exceed the lesser of 105% of or \$250,000 above the amount authorized for the activity. DOE may not use funds appropriated under this division B for an item that Congress declined to authorize.

Subtitle B–Other Miscellaneous Provisions

§ 2611. NOTICE OF REORGANIZATION

This section requires DOE to notify congressional committees at least 15 days before any reorganization of any environment, energy, or scientific research, development, demonstration, or commercial application program, project, or activity.

§ 2612. LIMITS ON GENERAL PLANT PROJECTS

This section provides that if during the construction of a civilian DOE project with no specific statutory funding level, the estimated cost exceeds \$5,000,000, DOE must halt construction until it has given congressional committees an explanation.

§ 2613. LIMITS ON CONSTRUCTION PROJECTS

This section bars spending on a project whenever the estimated cost of construction exceeds by more than 10% either: (1) the amount authorized for the project if the project has been funded by Congress, or (2) the estimated cost shown in the most recent budget justification to Congress, whichever is higher. Spending is not barred if it has been 30 days since DOE submitted an explanatory report to the congressional committees. These limits do not apply to any project currently estimated to cost less than \$5,000,000.

§ 2614. AUTHORITY FOR CONCEPTUAL AND CONSTRUCTION DESIGN

This section requires DOE to complete a conceptual design before requesting funding for a construction project (estimated to cost at least \$5,000,000) supporting any civilian environment, energy, or scientific research and development or application project. DOE may carry out a construction design for such a project if the design will not cost more than \$250,000.

§ 2615. NATIONAL ENERGY POLICY DEVELOPMENT GROUP MANDATED REPORTS This section requires DOE to send congressional committees a report on DOE's review of its energy efficiency and renewables programs.

§ 2616. PERIODIC REVIEWS AND ASSESSMENTS

This section requires DOE to arrange with the National Academies of Sciences and Engineering for periodic (at least every five years) reviews of programs authorized by this division B.

DIVISION C

TITLE I – CONSERVATION

§ 3101. CREDIT FOR RESIDENTIAL SOLAR ENERGY PROPERTY

This section provides an individual tax credit for purchase (including labor costs) of qualified photovoltaic and solar water heating property. The tax credit is 15% of the investment up to a maximum of \$2,000 for each system. The property must meet specified safety certifications, and the amount of the credit is limited to the taxpayer's tax liability. To be a "qualified solar water heating property expenditure," at least half of the energy that the property uses to heat water must be from the sun. A "qualified photovoltaic property expenditure" must use solar energy to generate electricity. The provision includes special rules for joint occupancy, cooperative housing, condominiums, and basis adjustments, among others. The credit applies in taxable years 2002 through 2006, or through 2008 for photovoltaic expenditures.

The Joint Committee on Taxation estimates the negative revenue effect of this provision as \$125

million over FY2002-FY2011.172

§ 3102. EXTENSION AND EXPANSION OF CREDIT FOR ELECTRICITY PRODUCED FROM RENEWABLE RESOURCES

This section extends the § 45 tax credit for wind and closed-loop biomass (in which plants are grown for the purpose of generating electricity) for facilities placed in service before January 1, 2007 (the tax credit currently expires January 1, 2002). This section also makes a more limited tax credit available to open-loop biomass facilities and landfill gas facilities, which were not previously covered. Open-loop biomass means any solid, nonhazardous, cellulosic waste material derived from forest-related resources, such as precommercial thinnings, solid wood waste materials (e.g., waste pallets), or agricultural sources. Open-loop biomass and landfill gas facilities placed in service before enactment will receive credits of 1.0 cents per kilowatt hour (rather than 1.5 cents per kilowatt hour) for 5 years from enactment (rather than 10 years from the date the facility was placed in service).

This provision has raised concerns that it will undermine recycling and composting efforts by subsidizing both landfills and burning biomass materials such as waste pallets and crop residues, rather than recycling them.¹⁷³ This could also further skew the market in favor of using virgin rather than recycled materials.¹⁷⁴ According to one estimate, this tax credit could be worth \$750 million per year to the pulp and paper industry, and the vast majority of this would go to mills using virgin materials.¹⁷⁵ The Joint Committee on Taxation estimates the negative revenue effect of this provision as \$2,358 million over FY2002-FY2011.¹⁷⁶

§ 3103. CREDIT FOR QUALIFIED STATIONARY FUEL CELL POWERPLANTS

This section provides an investment tax credit for a "qualified stationary fuel cell powerplant." This is a system with a fuel cell stack assembly that converts fuel into electricity using electrochemical means and has an electricity-only generation efficiency greater than 30%. Currently there is a 10% business energy credit for the cost of new equipment using solar or

 174 *Id*.

 175 *Id*.

¹⁷²Staff of the Joint Committee on Taxation, *Estimated Revenue Effects of a Chairman's Amendment in the Nature of a Substitute to the "Energy Tax Policy Act Of 2001" Scheduled for Markup by the Committee on Ways and Means on July 18, 2001*, 107th Cong. (July 18, 2001) (JCX-62-01) (hereinafter "Joint Committee on Taxation, Staff Report (July 18, 2001)").

¹⁷³Doug Koplow, *Tax proposals threaten recycling*, Waste News, 9 (Aug. 6, 2001).

¹⁷⁶Joint Committee on Taxation, Staff Report (July 18, 2001).

geothermal energy.¹⁷⁷ This provision extends the credit to cover stationary fuel cell powerplants, up to a maximum of \$1,000 per kilowatt of capacity. It also provides a personal tax credit of 10% of the cost (including labor) of a qualified stationary fuel cell powerplant for a residence. The credits apply to property placed in service after December 31, 2001, and before January 1, 2007.

The Joint Committee on Taxation estimates the negative revenue effect of this provision as \$447 million over FY2002-FY2011.¹⁷⁸

§ 3104. ALTERNATIVE MOTOR VEHICLE CREDIT

This section provides a tax credit for purchase of a new fuel cell motor vehicle, hybrid motor vehicle, alternative fuel motor vehicle, or advanced lean burn technology motor vehicle. The credit for a fuel cell motor vehicle ranges from \$4,000 to \$40,000 depending on the vehicle weight class and fuel efficiency. A "qualified fuel cell motor vehicle" is propelled by power derived from cells that convert chemical energy directly into electricity by combining oxygen with hydrogen fuel, and meets specified tailpipe emissions standards.

The credit for a hybrid motor vehicle ranges from \$250 to \$10,000 depending upon vehicle weight, the maximum available power, fuel efficiency, and tailpipe emissions. A "hybrid motor vehicle" draws propulsion energy from both an internal combustion or heat engine and a rechargeable energy storage system, and meets specified emissions standards.

The credit for an alternative fuel motor vehicle is 50% of the incremental cost, or 80% of the incremental cost if the vehicle meets certain emissions standards. The incremental cost is capped at \$5,000-\$40,000, depending on vehicle weight.¹⁷⁹ For purposes of this provision, an "alternative fuel motor vehicle" is one that uses only alternative fuels, which are defined as compressed natural gas, liquefied natural gas, liquefied petroleum gas, hydrogen, and any liquid that is at least 85% methanol by volume.

The credit for a 75/25 mixed-fuel vehicle is 70% of what the credit would be for an alternative fuel vehicle, and for a 95/5 mixed-fuel vehicle, the credit is 95% of the credit for an alternative fuel vehicle. A "mixed-fuel vehicle" weighs more than 14,000 pounds and operates normally

¹⁷⁷26 U.S.C. 48.

¹⁷⁸Joint Committee on Taxation, Staff Report (July 18, 2001).

¹⁷⁹Note, a Joint Committee on Taxation paper states that this provision caps the amount of credit, rather than the incremental cost, but that is not consistent with the text of the provision and Joint Committee staff agree. *See* Staff of the Joint Committee on Taxation, *Description of a Chairman's Amendment in the Nature of a Substitute for H.R. 2511, the "Energy Tax Policy Act Of 2001,"* 7 (July 17, 2001) (JCX-61-01) (hereinafter "Joint Committee on Taxation, Staff Report (July 17, 2001)"); Conversation with Joint Committee on Taxation staff (Oct. 16, 2001).

using at least 75% (or 95%) alternative fuel.

The credit for an advanced lean burn technology motor vehicle ranges from \$1,000 to \$4,000, depending upon its fuel economy. An "advanced lean burn technology motor vehicle" has an internal combustion engine that is designed to operate using more air than necessary, has direct injection, and achieves specified fuel economy and emissions standards.

These credits are available for vehicles purchased after December 31, 2001, and before January 1, 2008, or January 1, 2012 for fuel cell motor vehicles.

The criteria in this provision are inadequate to limit the tax credit to fuel efficient vehicles. As a consequence, the provision will subsidize purchases of vehicles that are still fuel inefficient and do not represent substantial advances in vehicle technology, contrary to the ostensible purpose of this provision.¹⁸⁰ For example, DaimlerChrysler plans to introduce a hybrid Dodge Durango in 2003 that will still get less than 19 miles per gallon.¹⁸¹ The Joint Committee on Taxation estimates the negative revenue effect of this provision as \$2,109 million over FY2002-FY2011.¹⁸²

§ 3105. EXTENSION OF DEDUCTION FOR CERTAIN REFUELING PROPERTY This section extends the deduction for the cost of qualified clean-fuel vehicle and refueling property until December 31, 2007. It also shifts the phase-down of the deduction to 2005-2007.

The Joint Committee on Taxation estimates the negative revenue effect of this provision as \$15 million over FY2002-FY2011.¹⁸³

§ 3106. MODIFICATION OF CREDIT FOR QUALIFIED ELECTRIC VEHICLES

This section modifies the current credit for purchase of a qualified electric vehicle to provide that the credit will generally range between \$4,000 and \$40,000, depending on the vehicle weight and driving range. It also extends the provision to apply through December 31, 2007.

 182 *Id*.

 183 *Id*.

¹⁸⁰See, e.g., *The President's Comprehensive National Energy Policy, Legislative Initiatives*, President George W. Bush, 4 (June 2001) ("The tax credits will encourage the purchase of highly fuel-efficient vehicles that incorporate advanced automotive technologies and will help to move hybrid and fuel cell vehicles from the laboratory to the highway.").

¹⁸¹See discussion of § 151. Mileage estimate is for combined city/highway. See Tax Deal in Works for 'Hybrids,' Times Union, A8 (Aug. 28, 2001); Durango to Get Patented Through-the-Road Hybrid Powertrain (Oct. 26, 2000) (available online at http://www.daimlerchrysler.com/index_e.htm).

The Joint Committee on Taxation estimates the negative revenue effect of this provision as \$286 million over FY2002-FY2011.¹⁸⁴

§ 3107. TAX CREDIT FOR ENERGY EFFICIENT APPLIANCES

This section provides a tax credit for manufacturing energy efficient clothes washers and refrigerators in four categories. The credit is \$50 for (1) a clothes washer with at least a 1.26 MEF ("modified energy factor"); or (2) a refrigerator with an internal volume of at least 16.5 cubic feet that consumes 10% less kW/hr/yr than the DOE energy efficiency standard for refrigerators for 2001. The credit is \$100 for (1) a clothes washer with at least a 1.42 MEF (or 1.5 MEF after 2004); or (2) a refrigerator with an internal volume of at least 16.5 cubic feet that consumes 15% less kW/hr/yr than the DOE energy efficiency standard for refrigerators for 2001. A manufacturer can earn credits only for energy efficient appliances produced above the average number of energy efficient appliances produced in the same category over 1998-2001. A manufacturer is limited to \$30,000,000 in credit for all taxable years for all production receiving \$50 credits, and \$30,000,000 in credit for all taxable years for all production receiving \$100 credits. Also, the total credit for a manufacturer in a year may not exceed 2% of the manufacturer's average annual gross receipts for the three previous years. The credit appliances through 2004.

The Joint Committee on Taxation estimates the negative revenue effect of this provision as \$292 million over FY2002-FY2011.¹⁸⁵

§ 3108. CREDIT FOR ENERGY EFFICIENCY IMPROVEMENTS TO EXISTING HOMES This section provides a tax credit of 20% of the cost of energy efficiency improvements for an existing home, up to a total of \$2,000 for all taxable years. A "qualified energy efficiency improvement" is any energy efficient building envelope component installed on a primary residence that meets the 1998 International Energy Conservation Code. If the aggregate cost is above \$1,000, an additional written certification is necessary. A "building envelope component" is an insulation material or system designed to reduce heat loss or gain, energy efficient windows and doors, and pigmented metal roofs designed to reduce heat gain. The credit applies to improvements installed between December 31, 2001, and January 1, 2007.

See § 3109. below for estimated revenue effect.

§ 3109. BUSINESS CREDIT FOR CONSTRUCTION OF NEW ENERGY EFFICIENT HOME This section provides a business tax credit to contractors for construction of new energy efficient homes. The credit is up to \$2,000 per home, equal to the aggregate adjusted bases of all energy

 184 *Id*.

 185 *Id*.

efficient property installed in the home. This covers energy efficient building envelope components (see § 3108) and energy efficient heating and cooling appliances. The energy efficient home must be certified to have annual heating and cooling energy consumption at least 30% below that of a comparable dwelling meeting specified standards. The credit applies to homes purchased between December 31, 2001, and January 1, 2007.

The Joint Committee on Taxation estimates the negative revenue effect of this provision and § 3108 providing a tax credit for improvements to existing homes as \$1,558 million over FY2002-FY2011.¹⁸⁶

§ 3110. ALLOWANCE OF DEDUCTION FOR ENERGY EFFICIENT COMMERCIAL BUILDING PROPERTY

This section allows a taxpayer to deduct expenditures (up to \$2.25 per square foot) for energy efficient commercial building property installed in connection with new construction or reconstruction. This covers any property that reduces total annual energy and power costs for the lighting, heating, cooling, ventilation, and hot water supply systems of the building by at least 50% compared to a reference building. The Secretary of the Treasury, in consultation with DOE, must promulgate rules specifying methods for calculating energy consumption and costs, taking into consideration certain California specifications. The deduction applies only to property placed in service before January 1, 2007.

The Joint Committee on Taxation estimates the negative revenue effect of this provision as \$387 million over FY2002-FY2011.¹⁸⁷

§ 3111. ALLOWANCE OF DEDUCTION FOR QUALIFIED ENERGY MANAGEMENT DEVICES AND RETROFITTED QUALIFIED METERS

This section allows a natural gas or electricity provider to deduct the costs of giving meters to consumers. The meters must enable consumers to manage their electricity or natural gas use in response to energy price and usage signals provided on at least a daily basis. The provider may deduct up to \$30 per meter. The deduction applies to meters placed in service after enactment.

See § 3112 below for estimated revenue effects.

§ 3112. THREE-YEAR APPLICABLE RECOVERY PERIOD FOR DEPRECIATION OF QUALIFIED ENERGY MANAGEMENT DEVICES

This section provides a 3-year recovery period for meters eligible for the deduction under § 3111.

The Joint Committee on Taxation estimates the negative revenue effect of this provision and §

 186 *Id*.

 187 *Id*.

3111 allowing a deduction for meters as \$239 million over FY2002-FY2011.¹⁸⁸

§ 3113. ENERGY CREDIT FOR COMBINED HEAT AND POWER SYSTEM PROPERTY This section provides a 10% business energy credit for purchase of combined heat and power property. This is property that (1) uses the same energy source for electric power generation (or mechanical energy generation) and steam or other thermal energy; (2) has over 50 kilowatts of electrical capacity or over 67 horsepower of mechanical energy capacity; (3) produces at least 20% of its total useful energy as thermal energy and at least 20% as electrical or mechanical power; (4) has an energy efficiency of over 60% (or 70% for more powerful systems); and (5) is placed in service between December 31, 2001, and January 1, 2007.

The Joint Committee on Taxation estimates the negative revenue effect of this provision as \$357 million over FY2002-FY2011.¹⁸⁹

§ 3114. NEW NONREFUNDABLE PERSONAL CREDITS ALLOWED AGAINST REGULAR AND MINIMUM TAXES

This section allows the personal energy credits added by the bill to offset both the regular tax and the alternative minimum tax.¹⁹⁰

The Joint Committee on Taxation estimates the negative revenue effect of this provision as \$100 million over FY2002-FY2011.¹⁹¹

§ 3115. PHASEOUT OF 4.3-CENT MOTOR FUEL EXCISE TAXES ON RAILROADS AND INLAND WATERWAY TRANSPORTATION WHICH REMAIN IN GENERAL FUND This section phases out the 4.3 cents per gallon excise tax on diesel fuel used in trains and barges, which goes to the general fund. The tax is reduced over the period from October 1, 2001, through December 31, 2009, after which it is eliminated.¹⁹²

The Joint Committee on Taxation estimates the negative revenue effect of this provision as \$992 million over FY2002-FY2011.¹⁹³ It is not clear what the energy policy rationale is for this phaseout.

 188 *Id*.

 189 *Id*.

¹⁹⁰Joint Committee on Taxation, Staff Report (July 17, 2001).

¹⁹¹Joint Committee on Taxation, Staff Report (July 18, 2001).

¹⁹²Joint Committee on Taxation, Staff Report (July 17, 2001) at 20.

¹⁹³Joint Committee on Taxation, Staff Report (July 18, 2001).

§ 3116. REDUCED MOTOR FUEL EXCISE TAX ON CERTAIN MIXTURES OF DIESEL FUEL

This section would reduce the motor fuel excise tax for diesel fuel blended in a water emulsion fuel to an "incentive tax rate" of 19.7 cents per gallon. The regular excise tax rate for diesel fuel is 24.3 cents per gallon. Other motor fuels such as liquefied natural gas have rates determined on an energy equivalent basis. This provision would account for the reduced Btu content per gallon of diesel-water emulsions that are at least 14% water.

The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be less than \$500,000.¹⁹⁴

§ 3117. CREDIT FOR INVESTMENT IN QUALIFYING ADVANCED CLEAN COAL TECHNOLOGY

This section provides an investment tax credit equal to 10% of the investment in a "qualifying advanced clean coal technology facility." This is a retrofitted or repowered coal-fired power plant that uses "qualifying advanced clean coal technology." "Clean coal technology" is advanced technology that uses coal to produce at least 75% of its thermal output as electricity. This includes the following technologies: advanced pulverized coal or atmospheric fluidized bed combustion, pressurized fluidized bed combustion, integrated gasification combined cycle and any other technology that out-performs "conventional technology," as that is defined in the bill.

The credits are limited to facilities comprising a national total of 7,500 megawatts. The Secretary of the Treasury must issue regulations for allocating this limit among facilities through a certification process conducted in consultation with DOE. The credit is also limited to the following:

-- A maximum of 5,000 megawatts (4,000 megawatts before 2009) of advanced pulverized coal or atmospheric fluidized bed combustion technology with a design net heat rate of no more than 9,500 Btu per kilowatt hour (for design coal with heat content over 9,000 Btu/pound) or no more than 9,900 Btu per kilowatt hour (for design coal with heat content of 9,000 Btu/pound or less).

-- A maximum of 1,000 megawatts (500 megawatts before 2009 and 750 megawatts before 2013) of pressurized fluidized bed combustion technology with a design net heat rate of no more than 8,400 Btu per kilowatt hour (for design coal with heat content over 9,000 Btu/pound) or no more than 9,900 Btu per kilowatt hour (for design coal with heat content of 9,000 Btu/pound or less).

-- A maximum of 2,000 megawatts (1,000 megawatts before 2009 and 1,500 megawatts before 2013) of integrated gasification combined cycle technology with a design net heat

 194 *Id*.

rate of no more than 8,550 Btu per kilowatt hour (for design coal with heat content over 9,000 Btu/pound) or no more than 9,900 Btu per kilowatt hour (for design coal with heat content of 9,000 Btu/pound or less), and with a net thermal efficiency on any fuel or chemical co-production of at least 39%.

-- A maximum of 2,000 megawatts (1,000 megawatts before 2009 and 1,500 megawatts before 2013) of technology for electricity production with a carbon emission rate not more than 85% of conventional technology.

The technologies eligible for credits must also meet *one* of the following emissions standards:

-- SO2 emissions may not exceed 5% of uncontrolled levels for a coal with a potential to emit at least 1.2 lb/million Btu.

-- SO2 emissions may not exceed 15% of uncontrolled levels for a coal with a potential to emit less than 1.2 lb/million Btu.

-- NOx emissions may not exceed 0.1 lb/million Btu (except from cyclone-fired boilers).

-- NOx emissions may not exceed 15% of uncontrolled levels from cyclone-fired boilers.

-- PM emissions may not exceed 0.02 lb/million Btu

-- Emissions levels meeting the Clean Air Act new source performance standards in effect at the time of retrofitting, if they are lower than the levels specified above.

The credits are not available for projects funded under the Clean Coal Technology Program or the Power Plant Improvement. DOE must establish selection criteria as part of a competitive solicitation. The credits do not apply to investments made after December 31, 2011.

These credits would subsidize investments made over the next ten years in coal-fired generation using technology that is commercially available today or will be in the next few years. The targeted thermal efficiencies and emissions criteria appear to be representative of the best existing technology, and a technology would only have to satisfy one of the emissions criteria. By 2008, DOE's Vision 21 Program aims to have commercially available technology that would meet substantially more ambitious goals than those set out here.¹⁹⁵ Providing large subsidies for investments in commercially available technology that does not offer significant environmental

¹⁹⁵The Vision 21 Program is DOE's initiative to develop technology for ultra-clean 21st century fossil fuel energy plants. *See Vision 21 Homepage and Goals, Gasification Technologies Homepage and Goals, and Combustion Technologies Homepage and Goals* (available online at http://www.fetc.doe.gov/products/power1/vision21frameset.htm).

benefits is unlikely to be a cost-effective means of achieving cleaner air.

The Joint Committee on Taxation estimates the negative revenue effect of this provision and § 3118 below providing a production tax credit for clean coal technology as \$3,307 million over FY2002-FY2011.¹⁹⁶

§ 3118. CREDIT FOR PRODUCTION FROM QUALIFYING ADVANCED CLEAN COAL TECHNOLOGY

This section provides a production tax credit for electricity produced from a qualifying advanced clean coal technology facility. The credit is based on the kilowatt hours of electricity and each 3,143 Btu of fuels or chemicals produced by the facility. It is available for ten years from the date the facility is placed in service. The amount of the credit varies according to the date the facility is placed in service (before 2009, 2009-2012, or 2013-2016), whether it is in the first five years or second five years of service, the heat content of the design coal (over 9,000 Btu/lb, or no more than 9,000 Btu/lb), and the facility's design net heat rate in Btu/kWh or design net thermal efficiency. The credit ranges from 1.40 cents per kWh to 0.10 cents per kWh, adjusted for inflation. It applies to production after the date of enactment.

See § 3117 above for the estimated negative revenue effect of this provision in combination with the investment tax credit. Note that facilities may be eligible to receive the production tax credit through 2026, so it is likely that a substantial portion of the costs of this provision are not included in that estimate.

TITLE II – RELIABILITY

§ 3201. NATURAL GAS GATHERING LINES TREATED AS 7-YEAR PROPERTY This section sets a 7-year recovery period and statutory class life of 10 years for natural gas gathering lines. There is no adjustment to the allowable amount of depreciation for computing the alternative minimum taxable income with respect to such property.¹⁹⁷ This applies to property placed in service after enactment.

The IRS has previously applied a longer class life and recovery period to natural gas gathering lines, but this has been successfully challenged in litigation.¹⁹⁸ The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be negligible.¹⁹⁹

 198 *Id*.

¹⁹⁶Joint Committee on Taxation, Staff Report (July 18, 2001).

¹⁹⁷Joint Committee on Taxation, Staff Report (July 17, 2001) at 23.

¹⁹⁹Joint Committee on Taxation, Staff Report (July 18, 2001).

§ 3202. NATURAL GAS DISTRIBUTION LINES TREATED AS 10-YEAR PROPERTY This section sets a 10-year recovery period and a statutory class life of 20 years for natural gas distribution lines. There is no adjustment to the allowable amount of depreciation for computing the alternative minimum taxable income with respect to such property.²⁰⁰ This applies to property placed in service after enactment.

Natural gas distribution pipelines currently have a 20-year recovery period and a class life of 35 years.²⁰¹ The Joint Committee on Taxation estimates the negative revenue effect of this provision as \$3,500 million over FY2002-FY2011.²⁰²

§ 3203. PETROLEUM REFINING PROPERTY TREATED AS 7-YEAR PROPERTY This section sets a 7-year recovery period and a statutory class life of 10 years for petroleum refining property. There is no adjustment to the allowable amount of depreciation for computing the alternative minimum taxable income with respect to such property.²⁰³ This applies to property placed in service after enactment.

Petroleum refining property currently has a 10-year recovery period and a class life of 16 years.²⁰⁴ The Joint Committee on Taxation estimates the negative revenue effect of this provision as \$1,320 million over FY2002-FY2011.²⁰⁵

§ 3204. EXPENSING OF CAPITAL COSTS INCURRED IN COMPLYING WITH ENVIRONMENTAL PROTECTION AGENCY SULFUR REGULATIONS This section allows small business refiners to claim an immediate deduction (i.e., expensing) for up to 75% of the costs of complying with the Highway Diesel Fuel Sulfur Control Requirements promulgated by EPA. A "small business refiner" employs no more than 1,500 employees and has an average total capacity of no more than 155,000 barrels per day.

See § 3205 below for estimated revenue effects.

§ 3205. ENVIRONMENTAL TAX CREDIT

This section provides small business refiners (defined as in § 3204 above) a tax credit for

 201 *Id*.

²⁰²Joint Committee on Taxation, Staff Report (July 18, 2001).

²⁰³Joint Committee on Taxation, Staff Report (July 17, 2001) at 25.

 204 *Id*.

²⁰⁵Joint Committee on Taxation, Staff Report (July 18, 2001).

²⁰⁰Joint Committee on Taxation, Staff Report (July 17, 2001) at 24.

production of low sulfur (a maximum of 15 parts per million) diesel fuel. The credit is 5 cents per gallon, up to a maximum of 25% of the refiner's capital costs of complying with the highway diesel fuel sulfur control requirements. The refiner's basis in the property would be reduced by the amount of the credit. The refiner must obtain a certification from Treasury, in consultation with EPA, that the capital costs will result in compliance with the low sulfur regulations. If not, the Treasury may recapture the credits. Recapture also applies in other circumstances, including a refiner's failure to comply with the low sulfur regulations.

The Joint Committee on Taxation estimates the negative revenue effect of this provision and § 3204 (expensing of capital costs) as \$96 million over FY2002-FY2011.²⁰⁶

§ 3206. DETERMINATION OF SMALL REFINER EXCEPTION TO OIL DEPLETION DEDUCTION

This section broadens the definition of an independent producer for the purpose of exemption from the requirement to deduct the costs of an asset based on actual production from a well (i.e., cost depletion) rather than deducting the costs based on percentage depletion.²⁰⁷ This provision changes the production limit for an independent producer from 50,000 barrels on any one day to an average daily production of 75,000 barrels.

The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$151 million over FY2002-FY2011.²⁰⁸

§ 3207. TAX-EXEMPT BOND FINANCING OF CERTAIN ELECTRIC FACILITIES

This section provides special liberalized rules allowing interest on bonds issued by public power entities to continue to be tax-exempt under specified conditions relating to electric industry restructuring. (In general, government bonds issued for "private business use" lose their tax-exempt status.) This provision excludes certain open access transmission and distribution activities from the definition of private business use, allowing interest on bonds for these activities to be tax-exempt. It also provides that tax-exempt bonds for new transmission facilities generally could only be issued for local transmission facilities, with specified exceptions.²⁰⁹

The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$2,460 million over FY2002-FY2011.²¹⁰

 206 *Id*.

²⁰⁷See Joint Committee on Taxation, Staff Report (July 17, 2001) at 27.

²⁰⁸Joint Committee on Taxation, Staff Report (July 18, 2001).

²⁰⁹See Joint Committee on Taxation, Staff Report (July 17, 2001) at 28-43.

²¹⁰Joint Committee on Taxation, Staff Report (July 18, 2001).

§ 3208. SALES OR DISPOSITIONS TO IMPLEMENT FEDERAL ENERGY REGULATORY COMMISSION OR STATE ELECTRIC RESTRUCTURING POLICY

This section allows a taxpayer to treat sale of electric transmission property (a "qualifying electric transmission transaction") as an involuntary conversion, which allows the taxpayer to defer tax on the gain from the sale if the taxpayer purchases a replacement property within a specified time period. The sale must be to an independent transmission company, which is defined as a regional transmission organization (RTO) approved by FERC, or a person who is not a market participant and whose transmission facilities are controlled by a FERC-approved RTO. This provision extends the time period for purchasing the replacement property from two to four years. It also expands the types of eligible replacement property to include exempt utility property, which is property used for generating or producing, transmitting, distributing, or selling electricity or natural gas, or stock in a corporation conducting those activities. The provision applies to transactions occurring after enactment.²¹¹

The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$2,396 million over FY2002-FY2011.²¹²

§ 3209. DISTRIBUTIONS OF STOCK TO IMPLEMENT FEDERAL ENERGY REGULATORY COMMISSION OR STATE ELECTRIC RESTRUCTURING POLICY This section provides that acquisition of stock in a qualifying electric transmission transaction (as defined in § 3208 above) is not barred from being treated as qualified property under Internal Revenue Code § 355(e)(3). The effect is to allow acquisition of stock in a qualifying electric transmission transaction (if other conditions are met) without triggering otherwise applicable tax liability for gains from the stock distribution.²¹³

§ 3210. MODIFICATIONS TO SPECIAL RULES FOR NUCLEAR DECOMMISSIONING COSTS

This section repeals a requirement that deductible contributions to a nuclear decommissioning fund must have been collected as part of the cost of service to ratepayers. This would allow unregulated, as well as regulated, entities to deduct amounts contributed to a qualified decommissioning fund. This section also repeals a limitation on contributions to a fund, instead allowing the fund to cover the full estimated decommissioning costs for a nuclear powerplant.

The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$1,933 million over FY2002-FY2011.²¹⁴

²¹¹See Joint Committee on Taxation, Staff Report (July 17, 2001) at 45.

²¹²Joint Committee on Taxation, Staff Report (July 18, 2001).

²¹³See Joint Committee on Taxation, Staff Report (July 17, 2001) at 47-48.

²¹⁴Joint Committee on Taxation, Staff Report (July 18, 2001).

§ 3211. TREATMENT OF CERTAIN INCOME OF COOPERATIVES

This section provides that a rural electric cooperative may exclude income from open access activities and nuclear decommissioning transactions in determining whether it satisfies the test for tax exemption under § 501(c)(12). Open access activities include providing transmission services under an RTO agreement.²¹⁵ Nuclear decommissioning transactions include transfers into and earnings from nuclear decommissioning trust funds. This provision also treats income from load loss transactions as member income.

The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$179 million over FY2002-FY2011.²¹⁶

§ 3212. REPEAL OF REQUIREMENT OF CERTAIN APPROVED TERMINALS TO OFFER DYED DIESEL FUEL AND KEROSENE FOR NONTAXABLE PURPOSES This section repeals the "dyed-fuel mandate." That mandate requires terminal facilities storing motor fuels (diesel fuel and kerosene) destined for a nontaxable use to offer the nontaxable fuel in a dyed form.

The Joint Committee on Taxation estimates that this would have a negligible revenue effect.²¹⁷

§ 3213. ARBITRAGE RULES NOT TO APPLY TO PREPAYMENTS FOR NATURAL GAS This section allows an entity to prepay for a supply of natural gas, using tax-exempt bond proceeds, without violating the restriction on arbitrage. It only applies if at least 85% of the natural gas purchased is for use by governmental utilities in the state that issued the bonds.

The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$827 million over FY2002-FY2011.²¹⁸

TITLE III – PRODUCTION

§ 3301. OIL AND GAS FROM MARGINAL WELLS

This section provides a business tax credit for production of oil and gas from marginal wells. The credit is \$3 per barrel of crude oil and 50 cents per 1,000 cubic feet of natural gas, reduced as the reference price (of the previous calendar year) exceeds \$15/barrel or \$1.67/1,000 cubic feet, and adjusted for inflation. The tax credit phases out entirely as the reference price exceeds \$18/barrel or \$2.00/1,000 cubic feet. The reference price is the estimated annual average

 217 *Id*.

 218 *Id*.

²¹⁵Joint Committee on Taxation, Staff Report (July 17, 2001) at 56.

²¹⁶Joint Committee on Taxation, Staff Report (July 18, 2001).

wellhead price for domestic crude oil or natural gas. The credit is limited to 1,095 barrel equivalents per well. A marginal well is a well that is treated as marginal under the tax provisions allowing a deduction for depletion (applies to stripper well properties and wells that produce heavy oil), or a well that has average daily production of no more than 25 barrel equivalents and produces water at a rate of at least 95% of total well effluent. This provision allows unused credits to be carried back for up to ten years, rather than the standard one year limit.

The Joint Committee on Taxation estimates that this provision will have no revenue effect over FY2002-FY2011.²¹⁹ This estimate is based on the CBO projection for oil and gas prices over that period, which are not projected to drop below \$18/barrel or \$2.00/1,000 cubic feet.

§ 3302. TEMPORARY SUSPENSION OF LIMITATION BASED ON 65 PERCENT OF TAXABLE INCOME AND EXTENSION OF SUSPENSION OF TAXABLE INCOME LIMIT WITH RESPECT TO MARGINAL PRODUCTION

This section suspends a limit on deductions that are based on percentage depletion for oil and gas wells so that the taxpayer will be able to deduct more than 65% of the taxpayer's overall taxable income. The limit is suspended for taxable years 2002-2006. This section also extends a current suspension of a limit on deductions that are based on percentage depletion for marginal oil and gas wells. This suspension allows taxpayers to deduct more than 100% of their net income from these properties. The suspension is extended to apply for five more years, from 2002-2006.

The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$1,110 million over FY2002-FY2011.²²⁰

§ 3303. DEDUCTION FOR DELAY RENTAL PAYMENTS

This section allows a taxpayer to deduct, rather than capitalize, delay rental payments incurred for development of oil or gas. A delay rental payment is an amount paid by the producer for the privilege of deferring development of an oil or gas well under a lease.

The Treasury Department has taken the position that the uniform capitalization rules require delay rental payments to be capitalized.²²¹ The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$1,166 million over FY2002-FY2011.²²²

§ 3304. ELECTION TO EXPENSE GEOLOGICAL AND GEOPHYSICAL EXPENDITURES

 220 *Id*.

²²¹Joint Committee on Taxation, Staff Report (July 17, 2001) at 63.

²²²Joint Committee on Taxation, Staff Report (July 18, 2001).

 $^{^{219}}$ *Id*.

This section allows a taxpayer to deduct, rather than capitalize, geological and geophysical expenses incurred for oil and gas exploration and development.

Courts and IRS revenue rulings have held that geological and geophysical expenses are capital and must be allocated to the cost of the property.²²³ The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$958 million over FY2002-FY2011.²²⁴

§ 3305. FIVE-YEAR NET OPERATING LOSS CARRYBACK FOR LOSSES ATTRIBUTABLE TO OPERATING MINERAL INTERESTS OF OIL AND GAS PRODUCERS

This section allows a producer to carryback a net operating loss for oil and gas operations to reduce tax liability (and obtain refunds) in each of the previous five years, rather than only the previous two years. The producer may carryback the lesser of (1) the amount that would be the net operating loss if only income and deductions attributable to "operating mineral interests" in oil and gas wells are taken into account, or (2) the amount of the net operating loss.²²⁵ This provision applies to net operating losses for years beginning January 1, 2002.

The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$1,104 million over FY2002-FY2011.²²⁶

§ 3306. EXTENSION AND MODIFICATION OF CREDIT FOR PRODUCING FUEL FROM A NONCONVENTIONAL SOURCE

This section extends the § 29 production tax credit for fuel production from a nonconventional source to apply to the first four years of production from new wells drilled before January 1, 2007. Specifically, this applies to oil produced from shale and tar sands, and gas produced from geopressured brine, Devonian shale, coal seams, or a tight formation. This section also extends the credit to apply to an additional four years of production from old wells, by shifting the expiration date for production to qualify for the credit from January 1, 2003, to January 1, 2007. In addition, it extends the credit to apply to five years of landfill gas production from facilities placed in service between June 30, 1998, and January 1, 2007. The additional production eligible for credit under this amendment is limited to an average barrel-of-oil equivalent of 200,000 cubic feet of natural gas per day per project. The credit is \$3 per barrel of oil equivalent, adjusted for inflation beginning in 2003, and it applies to fuel sold after enactment.

According to environmental advocates, this tax credit now largely supports destructive and very

²²³Joint Committee on Taxation, Staff Report (July 17, 2001) at 64.

²²⁴Joint Committee on Taxation, Staff Report (July 18, 2001).

²²⁵See Joint Committee on Taxation, Staff Report (July 17, 2001) at 67.

²²⁶Joint Committee on Taxation, Staff Report (July 18, 2001).

profitable coal-bed methane drilling.²²⁷ Coal-bed methane drilling uses numerous shallow wells to extract natural gas trapped under coal aquifers. To release the gas, large volumes of sodiumrich water are pumped out and discharged into surface streams and ponds. The drilling causes water pollution, including contaminated drinking water and irrigation systems, topsoil erosion, and ecological damage.²²⁸ American Rivers recently designated the Powder River in Wyoming and Montana as one of the top ten most endangered rivers in the U.S., due to damage from coal-bed methane drilling.²²⁹

In addition, the coal industry has used very dubious schemes to qualify for the § 29 tax credit, such as pulverizing conventional coal, spraying it with diesel fuel, and calling it a "synfuel."²³⁰ A recent Wall Street Journal article highlighted the blatant abuse of this tax credit, saying "businesses will get between \$650 million and \$850 million in tax subsidies to turn coal into something that looks and acts an awful lot like, well, coal."²³¹

The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$2,826 million over FY2002-FY2011.²³²

http://news.nationalgeographic.com/news/2001/08/0817_NGTmethanemadness.html); *Citizens Caught in Crossfire as High Oil Prices Spur Domestic Alternative Fuels Production*, PowderRiverBasin.org (March 28, 2000) (available online at:

http://resourcescommittee.house.gov/107cong/energy/2001sep06/swartz.htm).

²²⁹American Rivers, *Wyoming's Powder River Among Nation's Most Endangered* (April 11, 2001) (available online at:

http://www.amrivers.org/templates/friendly.asp?ACTCONURL=/pressrelease/presspowder4.11.0 1.htm).

²³⁰*Rich Returns: Washington Alchemy Turns Coal Products Into Big Tax Credits*, The Wall Street Journal, A1 (July 12, 2001).

 231 *Id*.

²³²Joint Committee on Taxation, Staff Report (July 18, 2001).

²²⁷Letter from Earthjustice et al. to U.S. Representatives, *Oppose the "Energy Tax Policy Act of 2001, HR 2511"* (July 24, 2001).

²²⁸See U.S. West Fears Effects of Methane Drilling, National Geographic Today (Aug. 17, 2001) (available online at:

http://www.powderriverbasin.org/pressreleases.htm); Testimony of Ed Swartz, Powder River Basin Resource Council, House Committee on Resources, Subcommittee on Energy and Mineral Resources, *Hearing on Orderly Development of Coalbed Methane on Public Lands* (Sept. 6, 2001) (available online at:
§ 3307. BUSINESS RELATED ENERGY CREDITS ALLOWED AGAINST REGULAR AND MINIMUM TAX

This section allows taxpayers to take advantage of the business energy credits added in this bill regardless of the otherwise applicable alternative minimum tax.²³³ A taxpayer could avoid paying the minimum tax to the extent that business energy credits reduced the tax liability below the amount of the minimum tax.

The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$502 million over FY2002-FY2011.²³⁴

§ 3308. TEMPORARY REPEAL OF ALTERNATIVE MINIMUM TAX PREFERENCE FOR INTANGIBLE DRILLING COSTS

This section temporarily repeals application of an alternative minimum tax preference for expensing intangible drilling costs for oil and gas wells.²³⁵ The repeal applies to taxpayers other than integrated oil companies, and it applies to taxable years 2002-2004.

Currently, the difference between expensing, rather than capitalizing, intangible drilling costs, is an item of tax preference for the alternative minimum tax under certain circumstances.²³⁶ The alternative minimum tax preference applies to taxpayers (other than integrated oil companies) only to the extent that not applying it would reduce their alternative minimum taxable income by over 40%.²³⁷ The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$28 million over FY2002-FY2011.²³⁸

§ 3309. ALLOWANCE OF ENHANCED RECOVERY CREDIT AGAINST THE ALTERNATIVE MINIMUM TAX

This section allows the business energy tax credit for enhanced oil recovery to apply regardless of the otherwise applicable alternative minimum tax.²³⁹ This applies for taxable years 2002-2004.

 236 *Id*.

 237 *Id*.

²³⁸Joint Committee on Taxation, Staff Report (July 18, 2001).

²³⁹See Joint Committee on Taxation, Staff Report (July 17, 2001) at 72.

²³³See Joint Committee on Taxation, Staff Report (July 17, 2001) at 70.

²³⁴Joint Committee on Taxation, Staff Report (July 18, 2001).

²³⁵Joint Committee on Taxation, Staff Report (July 17, 2001) at 71.

The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$115 million over FY2002-FY2011.²⁴⁰

§ 3310. EXTENSION OF CERTAIN BENEFITS FOR ENERGY-RELATED BUSINESSES ON INDIAN RESERVATIONS

This section allows certain energy-related property located on an Indian reservation to have an accelerated depreciation schedule for three additional years, from 2004-2006. This covers property at a facility for: generation or transmission of electricity; an oil or gas well; transmission or refining of oil or gas; or production of nonconventional fuel. The provision also extends the Indian employment tax credit for three years (from 2004-2006) for employees working at such a facility.

The Joint Committee on Taxation estimates that the negative revenue effect of this provision would be \$175 million over FY2002-FY2011.²⁴¹

DIVISION D

§ 4101. CAPACITY BUILDING FOR ENERGY-EFFICIENT, AFFORDABLE HOUSING This section amends the HUD Demonstration Act of 1993. It authorizes the Secretary of HUD to provide training and grants to help community development corporations and community housing development organizations provide energy efficient affordable housing and residential energy conservation measures.

§ 4102. INCREASE OF CDBG PUBLIC SERVICES CAP FOR ENERGY CONSERVATION AND EFFICIENCY ACTIVITIES

This section amends the Housing and Community Development Act of 1974. It allows HUD grants to local governments to be used for public services related to energy efficiency. It also raises the limit on the percentage of HUD funds that may be used for public services for energy conservation and efficiency from 15% to 25%.

§ 4103. FHA MORTGAGE INSURANCE INCENTIVES FOR ENERGY EFFICIENT HOUSING

This section amends the National Housing Act to raise the limit on the size of a mortgage that HUD may insure by up to 30%, if necessary to account for the cost of installing a solar energy system. Currently, HUD may insure a mortgage up to 20% larger than the otherwise applicable limit, if necessary to account for a solar energy system.

§ 4104. PUBLIC HOUSING CAPITAL FUND

 241 *Id*.

²⁴⁰Joint Committee on Taxation, Staff Report (July 18, 2001).

This section amends the United States Housing Act provisions that authorize a public housing capital fund to help public housing agencies carry out capital and management activities. This section authorizes HUD to fund activities to improve energy and water-use efficiency.

§ 4105. GRANTS FOR ENERGY-CONSERVING IMPROVEMENTS FOR ASSISTED HOUSING

This section amends the National Energy Conservation Policy Act to provide that grants for energy-conserving improvements for assisted housing may fund installation of energy and water conserving fixtures and fittings, as well as weatherization materials.

§ 4106. NORTH AMERICAN DEVELOPMENT BANK

This section amends the North American Free Trade Agreement Implementation Act to direct the U.S. board members for the North American Development Bank to encourage the bank to finance projects related to clean and efficient energy, including energy conservation.

DIVISION E

§ 5003. CLEAN COAL POWER INITIATIVE

This section requires DOE to carry out a program to achieve clean coal cost and performance goals to be established by DOE.

§ 5004. COST AND PERFORMANCE GOALS

This section requires DOE to conduct an assessment, take public comment, and establish measurable cost and performance goals for 2005, 2010, 2015, and 2020 for clean coal programs authorized by this division.

§ 5005. AUTHORIZATION OF APPROPRIATIONS

This section authorizes \$200,000,000 per year for FY2002-FY2011 for DOE to carry out the Clean Coal Power Initiative. It limits DOE from spending funds after September 30, 2002, unless DOE has sent Congress a required report, and at least one month has elapsed since DOE sent the report. The report must include a 10-year plan that includes an assessment of whether funding levels are appropriate, a description of the proposal solicitation process, a list of technical milestones for each technology to be pursued, recommendations for recouping federal funding, and a description of how the program will avoid problems enumerated in GAO reports on the Clean Coal Technology Program.

Several GAO reports have identified numerous management weaknesses in the Clean Coal Technology Program, which began in 1985.²⁴² In its most recent report, GAO identified eight

²⁴²Jim Wells, Director, Natural Resources and Environment, GAO, *Testimony Before the Subcommittee on Energy, Committee on Science, House of Representatives, Lessons Learned in the Clean Coal Technology Program* (June 12, 2001).

projects with serious delays or financial problems, including two bankrupt projects and seven projects with \$529.4 million in unspent funds.²⁴³ DOE has completed 24 projects at a cost of about \$400 million.²⁴⁴ Only 15 of these had sales of a demonstrated clean coal technology.²⁴⁵

§ 5006. PROJECT CRITERIA

This section requires that to receive funding, a project must advance efficiency, environmental performance, and cost competitiveness well beyond the level of technologies that had been demonstrated at the time of enactment. At least 80% of the authorized funds must be used for projects on coal-based gasification technologies. DOE must also set technical milestones for the projects to meet the following criteria. By 2020, gasification technologies should be able to: remove 99% of SO2; meet an emissions level of 0.05 lbs of NOx per million Btu; achieve substantial reductions in mercury emissions; and achieve a thermal efficiency of 60%. By 2010, other technologies should be able to: remove 97% of SO2; meet an emissions level of 0.08 lbs of NOx per million Btu; achieve substantial reductions in mercury emissions; and achieve a thermal efficiency of 45%. Before awarding funding to a recipient, DOE must be satisfied that the recipient is financially viable, will spend the funds effectively, and there is a market for the technology. Additional criteria for awarding assistance include reducing costs for using coal and demonstrating technologies applicable to 25% of coal-fired power plants. The federal cost share may not exceed 50%. In determining what emissions levels or technologies are achievable or demonstrated for purposes of Clean Air Act requirements, EPA may not take into account any achievements of a facility receiving Clean Coal Power Initiative funding.

This provision dedicates the majority of the funding (80%) to coal gasification, which appears to be the technology with the potential for the greatest emissions reductions.²⁴⁶ In substance and timing, the performance criteria for the projects are generally comparable to or slightly less stringent than the goals DOE has established for the Vision 21 Program, DOE's initiative to develop technology for ultra-clean 21st century fossil fuel energy plants.²⁴⁷

§ 5007. STUDY

This section requires DOE to report to Congress biennially on recommendations for achieving

²⁴³GAO, Clean Coal Technology: Status of Projects and Sales of Demonstrated Technology, 2 (March 9, 2000) (RCED-00-86R).

 244 *Id*.

 245 *Id*.

²⁴⁶See Vision 21 Homepage and Goals, Gasification Technologies Homepage and Goals, and Combustion Technologies Homepage and Goals (available online at http://www.fetc.doe.gov/products/power1/vision21frameset.htm).

²⁴⁷See id.

the cost and performance goals.

§ 5008. CLEAN COAL CENTERS OF EXCELLENCE

This section requires DOE to award a portion of the funds authorized for the Clean Coal Power Initiative to universities with potential for advancing new clean coal technologies for "Centers of Excellence for Energy Systems of the Future."

DIVISION F

TITLE I – GENERAL PROTECTIONS FOR ENERGY SUPPLY AND SECURITY

§ 6101. STUDY OF EXISTING RIGHTS-OF-WAY ON FEDERAL LANDS TO DETERMINE CAPABILITY TO SUPPORT NEW PIPELINES OR OTHER TRANSMISSION FACILITIES This section requires the head of each federal agency that has authorized a right-of-way across federal lands for transporting energy supplies or transmitting electricity to review each right-ofway and report to DOE and FERC on whether it can be used to support additional capacity.

§ 6102. INVENTORY OF ENERGY PRODUCTION POTENTIAL OF ALL FEDERAL PUBLIC LANDS

This section requires DOI, in consultation with the Department of Agriculture and DOE, to inventory all federal public lands, except national parks and wilderness areas, for coal, wind, solar, and geothermal power production potential. The inventory must identify any impediments to development, and DOE must report the results to the relevant congressional committees.

This inventory would cover national monuments, national wildlife refuges, national marine sanctuaries, national wild and scenic rivers, national trails, and roadless areas, including those that are being considered for wilderness designation. The provision does not include any requirement to evaluate environmental impacts of development, or to identify the benefits of protections that are deemed impediments to development. A comparable inventory and identification of barriers to development is already required for oil and gas production potential under 42 U.S.C. 6217.

§ 6103. REVIEW OF REGULATIONS TO ELIMINATE BARRIERS TO EMERGING ENERGY TECHNOLOGY

This section requires federal agencies to review their regulations to identify barriers to market entry for emerging energy-efficient technologies. Agencies must periodically report to Congress and the President on the barriers identified and actions to remove them.

§ 6104. INTERAGENCY AGREEMENT ON ENVIRONMENTAL REVIEW OF INTERSTATE NATURAL GAS PIPELINE PROJECTS

This section requires DOE, coordinating with FERC, to establish an interagency task force and develop an interagency agreement to expedite environmental review and permitting of natural gas pipeline projects. The agreement must require agencies to review pipeline projects within

specified time periods, and DOE must give Congress the agreement.

This provision would reduce the opportunity of the Fish and Wildlife Service, EPA, and the Advisory Council on Historic Preservation to thoroughly evaluate and mitigate the impacts of natural gas pipeline projects on important wildlife, environmental and historic preservation resources. It could also have the effect of reducing the states' role, by limiting opportunity for involvement by state historic preservation officers. While requiring agencies to speed review of pipeline projects, this does not give agencies any additional resources to conduct the reviews, which suggests that the quality of the reviews may suffer.

§ 6105. ENHANCING ENERGY EFFICIENCY IN MANAGEMENT OF FEDERAL LANDS

This section expresses the sense of Congress that federal land management agencies should enhance the use of energy efficient technologies in managing natural resources. This section directs the Departments of Interior and Agriculture to try to use energy efficient technologies in public buildings associated with public lands and resources. It also directs these agencies to try to use energy efficient motor vehicles in managing public lands.

§ 6106. EFFICIENT INFRASTRUCTURE DEVELOPMENT

This section requires DOE and FERC to conduct a joint study of the location and extent of anticipated demand growth for natural gas in the Western states. This provision requires a report to the relevant congressional committees. The report must include recommendations for coordinating development of natural gas infrastructure.

TITLE II – OIL AND GAS DEVELOPMENT

Subtitle A–Offshore Oil and Gas

§§ 6202-6203. LEASE SALES IN WESTERN AND CENTRAL PLANNING AREA OF THE GULF OF MEXICO AND SAVINGS CLAUSE

This section suspends royalties for oil and gas leases on federal lands in the Gulf of Mexico for leases sold within two years of enactment. This requires DOE to suspend royalties for at least the following quantities of production:

-- 5 million barrels of oil equivalent for each lease in water depths of 400-800 meters

-- 9 million barrels of oil equivalent for each lease in water depths of 800-1,600 meters

-- 12 million barrels of oil equivalent for each lease in water depths greater than 1,600 meters

CBO estimates that net cost of the lost royalties for leases in water depths of 400-800 meters

would be \$20 million from 2007-2011, partially offset by larger bonus bids of \$16 million.²⁴⁸ This would total about \$4 million of net losses to the Treasury over the 2002-2011 time period.²⁴⁹ Royalty losses would continue over the life of the leases. The Minerals Management Service (MMS) estimates that these losses would total \$49 million, or a net loss of \$32 million over the life of the leases.²⁵⁰

CBO did not estimate royalty losses from the lease sales for depths of 800-1,600 meters or for greater than 1,600 meters. Pursuant to its discretionary authority, MMS is already providing royalty relief at these depths for the number of barrels per lease specified in the legislation, and MMS has stated that it will continue to apply that relief for the next two years.²⁵¹ CBO assumes for purposes of analysis that MMS would continue this policy.²⁵² MMS estimates that applying this policy for lease sales in FY2002 and FY2003 will reduce net royalties by \$247 million over the life of the leases.²⁵³

§ 6204. ANALYSIS OF GULF OF MEXICO FIELD SIZE DISTRIBUTION, INTERNATIONAL COMPETITIVENESS, AND INCENTIVES FOR DEVELOPMENT This section requires DOI and DOE to commission the National Academy of Sciences to review existing Gulf of Mexico oil and natural gas resource assessments, compare the lease terms and financial incentives offered by the MMS with the lease terms applied by other countries, and recommend appropriate levels of leasing incentives to optimize domestic oil and gas supplies. DOI must report and make recommendations to the relevant congressional committees.

Subtitle B–Improvements to Federal Oil and Gas Management

§ 6222. STUDY OF IMPEDIMENTS TO EFFICIENT LEASE OPERATIONS This section requires the Departments of Interior and Agriculture to conduct a joint study and

²⁴⁸Congressional Budget Office, *Preliminary CBO Estimate of Direct Spending and Revenue Effects of H.R. 4, the Securing America's Future Energy Act of 2001 (as introduced on July 27, 2001)* (August 1, 2001) (hereinafter "CBO Cost Estimate (August 1, 2001)").

 249 *Id*.

²⁵⁰In this calculation, MMS assumed \$17 million in additional bonuses. Minerals Management Service, *DWRR Information* (fax) (Oct. 5, 2001).

²⁵¹See 43 U.S.C. 1337; U.S. Dept. of Interior, News Release: MMS Announces Lease Terms and Conditions for Central Gulf Lease Sale 178 (Feb. 23, 2001); Final Rule, Outer Continental Shelf Oil and Gas Leasing, 66 FR 11512, 11514 (Feb. 23, 2001).

²⁵²Conversation with CBO staff (Aug. 8, 2001).

²⁵³Minerals Management Service, *DWRR Information* (fax) (Oct. 5, 2001).

report to the relevant congressional committees on the impediments to efficient oil and gas leasing on federal onshore lands. The study must review the leasing process under federal land managers, the approval process for drilling permits, the approval process for surface plans of operation, and the process for administrative appeal of Bureau of Land Management (BLM) decisions on oil and gas leases. The study must identify delays in these processes and recommendations for expediting the processes.

This provision has no requirement to consider the benefits of the current leasing approval processes, such as the environmental protections obtained by allowing federal agencies with environment and natural resources expertise to ensure that critical resources are protected.

§ 6223. ELIMINATION OF UNWARRANTED DENIALS AND STAYS

This section requires DOI to eliminate "unwarranted denials and stays of leases" and "unwarranted restrictions on lease operations" for oil and gas leasing on federal land. The Secretary of Interior (for BLM leases) or Agriculture (for Forest Service leases) must identify any differences between the federal requirements and the applicable state law restrictions on surface use and operations, and provide a written explanation of the differences. In addition, the Secretary must provide a written explanation to reject a lease offer on the basis that the land is unavailable for leasing. The Secretary must also reassess any determination of unavailability based on a previous management decision. If there is a mix of available and unavailable land, the Secretary must segregate and lease available land upon request. Also, the Secretary must provide a written detailed explanation for disapproving or modifying any operations plan or drilling permit application. The provision states that it should not be construed to bar leasing requirements different from those that apply under state law or to affect the procedures that apply to judicial review of actions taken under this subsection.

This section uses process requirements to encourage federal land managers to grant leases with minimal protective requirements. While agencies are not barred from rejecting lease applications or including lease provisions to protect federal lands from damage from oil and gas operations, they are required to justify such actions in writing. In contrast, this does not require justification for the decision to grant a lease or not to require certain elements of an operations plan, effectively weighting the scales in only one direction.

These provisions also appear to invite judicial review of an agency's compliance with the justification requirements. The final clause disclaims any intent to affect the procedures for judicial review, but by adding new substantive requirements, the provision appears to allow review of agencies' compliance with those provisions. This could make it substantially more difficult for agencies to justify their rejection of a lease offer or drilling permit, or their additions to an operating plan.

§ 6224. LIMITATION ON COST RECOVERY FOR APPLICATIONS

This section bars the Secretary from recovering DOI's costs for activities connected with oil and gas leases on federal lands.

The Federal Land Policy and Management Act of 1976 (43 U.S.C. 1734, 1764) authorizes an agency to charge reasonable filing and service fees to recover its costs for applications and other documents, such as environmental reviews, relating to public lands. This section would require the federal government, not the applicant, to bear all of the costs of conducting oil and gas leasing of federal lands. BLM currently recovers a small portion of the costs of leasing through fees for leasing applications and certain related activities.²⁵⁴ In addition, BLM has proposed, but not yet finalized, a rule to recover considerably more of the costs of leasing federal lands.²⁵⁵ The rule responds to recommendations made by the DOI Inspector General in 1988. The cost recovery provisions in the proposed rule applicable to oil and gas leasing would raise an estimated \$2,052,000 in fees annually, although this may be somewhat offset by reduced bonus bids.²⁵⁶ BLM is not projecting a date for finalization of the rule.²⁵⁷ CBO did not assign any costs to this provision because the proposed rules are not yet in place and BLM has not indicated what existing fees would be negated by this provision.²⁵⁸

§ 6225. CONSULTATION WITH SECRETARY OF AGRICULTURE

This section amends § 17(h) of the Mineral Leasing Act (30 U.S.C. 226(h)) to limit veto power over an oil or gas lease on national forest lands to the Secretary of Agriculture or the Undersecretary of Agriculture for Natural Resources and Environment, with no further delegation permitted. This provision would remove the National Forest Service's current authority (as delegated from the Secretary of Agriculture) to veto a lease on national forest lands or insist on protective stipulations in a lease. The Secretary of the Interior would be required to consult with the Secretary of Agriculture on lease stipulations.

The effect of this provision would be to significantly limit the Forest Service's ability to weigh oil and gas production against other congressionally mandated uses for the national forests, and

²⁵⁵65 FR 78440.

²⁵⁶65 FR 78448.

²⁵⁷Conversation with BLM staff (Sept. 7, 2001).

²⁵⁸Apparently, there has been some confusion regarding whether this provision would bar BLM from continuing to impose current fees. According to CBO, BLM informed CBO that the agency does not currently recover costs that would be barred by this provision. Conversation with CBO staff (Aug. 20, 2001). However, there does not appear to be a legal basis for this interpretation, and BLM staff have neither confirmed or denied this interpretation nor pointed to any basis for the interpretation, despite multiple requests from the minority staff of the House Committee on Government Reform.

²⁵⁴See Proposed Rule, Oil and Gas Leasing; Geothermal Resources Leasing; Coal Management; Management of Solid Minerals Other Than Coal; Mineral Materials Disposal; and Mining Claims Under the General Mining Laws, 65 FR 78440, 78444 (December 15, 2000) (table lists current fees).

require the protections that are necessary to optimize the land use. By requiring these decisions to be made only at the Secretary or Undersecretary level for each individual lease, this procedural requirement would have the effect of heavily weighting decisions towards allowing leasing with minimal environmental protections. It would also shift resource management decisions from land managers in the field to the Washington headquarters of the Departments of Agriculture and Interior.

Subtitle C–Miscellaneous

§ 6231. OFFSHORE SUBSALT DEVELOPMENT

This section allows the Secretary to suspend leases for subsalt oil and gas development on the Outer Continental Shelf.

Currently, companies must develop (i.e., drill wells on) their oil and leases on federal lands within the lease term or relinquish the lease. This is intended to prevent speculation and allow other companies the opportunity to develop the site if the original leaseholder does not act. This provision, however, would allow an indefinite suspension of operations for leases for resources beneath subterranean salt sheets. This would specifically benefit Anadarko Petroleum Corporation, which is headquartered in Houston, and is an industry leader in this type of oil and gas exploration.²⁵⁹ Anadarko Petroleum contributed \$448,529 in the 1999-2000 election cycle, of which 98% went to Republicans.²⁶⁰

§ 6232. PROGRAM ON OIL AND GAS ROYALTIES IN KIND

This section allows DOI to accept oil and gas royalties in kind. If the lessee processes the gas or delivers the oil or gas beyond the lease area, DOI must reimburse the lessee for the transportation or processing costs. DOI must determine that accepting royalties in kind would provide at least equivalent benefits to royalties in value. This section also requires DOI to consult with states, and to report to Congress annually from FY2002-FY2006 regarding the royalties in kind program. In selling the oil and gas from in kind royalties, DOI may give preference to refineries without their own crude oil supplies and to state or federal agencies for use for federal low-income energy assistance programs. These provisions apply through FY2006.

Under current law, the net proceeds from sale of in-kind royalties generally go to the Treasury, with the exception of revenues from certain in-kind royalty pilot programs.²⁶¹ According to

²⁵⁹Bush Energy Bill has One Big Winner, Boston Globe, A2 (July 14, 2001).

²⁶⁰Center for Responsive Politics (information available online at http://www.opensecrets.org/industries/index.asp).

²⁶¹See Congressional Budget Office, *Cost Estimate of H.R. 2436*, 7 (July 27, 2001) (hereinafter "CBO Cost Estimate (July 27, 2001)").

CBO, results from previous royalty-in-kind projects have been mixed.²⁶² Royalty-in-kind programs require DOI to compete in the market for oil and gas sales with more experienced buyers and sellers.²⁶³ Analyses indicate that the first pilot program lost 6.5% of fair market value, and the second lost \$3 million.²⁶⁴ Furthermore, a 1998 GAO report determined that there were significant barriers to ensuring that the federal government receives its fair share under royalties in kind programs.²⁶⁵ CBO estimates that this provision would have a net cost of about \$5,000,000 from 2002-2006.²⁶⁶

§ 6233. MARGINAL WELL PRODUCTION INCENTIVES

This section requires DOI to reduce the royalty rate as production declines for marginal oil and gas wells whenever the price of oil is below \$15 per barrel or the price of gas is below \$2.00 per million Btu for 180 consecutive days. This applies to: onshore oil wells producing less than 30 barrels per day; onshore gas wells producing less than 120 million Btu per day; offshore oil wells producing less than 300 barrels per day; and offshore gas wells producing less than 1,200 million Btu per day.

The provision does not specify how much royalty relief would be granted or for how long it would apply. DOI already provides some royalty relief to low-producing onshore oil wells.²⁶⁷ This section defines marginal wells far more broadly than they are defined for purposes of providing favorable treatment under the tax code. "Marginal production" for tax purposes is a stripper well that produces on average no more than 15 barrel equivalents per day.²⁶⁸ Under the new definition, 85% of onshore producing wells would qualify for royalty relief.²⁶⁹ CBO

²⁶²*Id.* at 8.

 263 *Id*.

²⁶⁴Hon. Ron Kind and Hon. Nick Rahall, *Additional Dissenting Views on H.R. 2436*, 2 (undated).

²⁶⁵Id., citing GAO, Federal Oil Valuation: Efforts to Revise Regulations and an Analysis of Royalties in Kind (GAO/RCED-98-242).

²⁶⁶CBO Cost Estimate (August 1, 2001).

²⁶⁷CBO Cost Estimate (July 27, 2001) at 5.

²⁶⁸26 U.S.C.A. 613A(c)(6)(D).

²⁶⁹Bill Would Shift Drilling Approvals From Forest Supervisors to White House Official, Los Angeles Times (Aug. 2, 2001); Committee on Resources, *Democratic Analysis of the Resources Committee Republican Energy Bill "Energy Security Act,"* 3 (July 10, 2001) (hereinafter "Democratic Analysis (July 10, 2001)"). estimates that this provision would reduce royalty receipts by \$491 million over 2002-2011.²⁷⁰

§ 6234. REIMBURSEMENT FOR COSTS OF NEPA ANALYSES, DOCUMENTATION AND STUDIES

This section amends the Mineral Leasing Act to allow DOI to reimburse lessees and applicants for the costs of environmental analyses they prepare for purposes of the National Environmental Policy Act. The reimbursements will be made through royalty credits. They will retroactively apply to royalties from ongoing production under existing leases.

Currently, DOI must complete NEPA analyses before leasing federal lands.²⁷¹ Due to funding shortfalls, lease applicants often hire third parties to assist in the analyses to expedite the leasing process.²⁷² These private sector costs would be reimbursed by the federal taxpayer under this provision. CBO estimates that this provision, together with the parallel provision for geothermal production (§ 6308), could cost \$370 million in lost royalties from 2002-2011.²⁷³

§ 6235. ENCOURAGEMENT OF STATE AND PROVINCIAL PROHIBITIONS ON OFF-SHORE DRILLING IN THE GREAT LAKES

In this provision, Congress finds that the environmental dangers associated with off-shore drilling for oil and gas in the Great Lakes outweigh the potential benefits. Congress encourages shore states to prohibit such drilling.

TITLE III-GEOTHERMAL ENERGY DEVELOPMENT

§ 6301. ROYALTY REDUCTION AND RELIEF

This section reduces the royalty rate for geothermal production from the current requirement of 10%-15% of the value of the steam to a maximum of 8% of the value of the steam. This section also provides three years of royalty-free production for: (1) geothermal production from any lease that is executed and begins producing within five years of enactment; and (2) the new production from any facility that expands by more than 10% within five years of enactment.

CBO estimates that this provision would reduce geothermal royalty receipts by \$72 million over 2002-2011.²⁷⁴

§ 6302. EXEMPTION FROM ROYALTIES FOR DIRECT USE OF LOW TEMPERATURE

²⁷⁰CBO Cost Estimate (August 1, 2001).

²⁷¹Democratic Analysis (July 10, 2001) at 6.

 272 *Id*.

²⁷³CBO Cost Estimate (August 1, 2001).

²⁷⁴CBO Cost Estimate (July 27, 2001) at 7.

GEOTHERMAL ENERGY RESOURCES

This section exempts leases for use of low temperature (less than 195 degrees Fahrenheit) geothermal resources from any royalties. Instead, a lessee for these resources will pay only an annual fee in the range of \$100-\$1,000, based on a schedule to be developed by DOI.

Because these leases generate little revenue currently, BLM estimated that the costs would not be significant for purposes of CBO analysis (less than \$500,000).

§ 6303. AMENDMENTS RELATING TO LEASING ON FOREST SERVICE LANDS This section amends § 15(b) of the Geothermal Steam Act of 1970 (30 U.S.C. 1014(b)) to limit veto power over a geothermal lease to the Secretary of Agriculture or the Undersecretary of Agriculture for Natural Resources and Environment, with no further delegation permitted. This provision would remove the National Forest Service's current authority (as delegated from the Secretary of Agriculture) to veto a lease on national forest lands or insist on protective stipulations in a lease. The Secretary of the Interior would be required to consult with the Secretary of Agriculture on lease stipulations. This provision parallels § 6225 for oil and gas leasing in national forests.

The effect of this provision would be to significantly limit the Forest Service's ability to weigh geothermal production against other congressionally mandated uses for the national forests, and to require any protections necessary to optimize the land use. By requiring these decisions to be made only at the Secretary or Undersecretary level for each individual lease, this procedural requirement would have the effect of heavily weighting decisions towards allowing leasing with minimal environmental protections. It would also shift resource management decisions from land managers in the field to the Washington headquarters of the Departments of Agriculture and Interior.

§ 6304. DEADLINE FOR DETERMINATION ON PENDING NONCOMPETITIVE LEASE APPLICATIONS

This section sets a deadline of 90 days from enactment for DOI to determine whether to conduct a lease sale by competitive bidding or award the lease without competitive bidding, for each geothermal lease application pending as of enactment.

§ 6305. OPENING OF PUBLIC LANDS UNDER MILITARY JURISDICTION

This section opens all public lands under jurisdiction of the Defense Department to geothermal leasing under the Geothermal Steam Act of 1970 and other applicable provisions of federal law. This section also requires DOI, with concurrence by the Defense Department, to issue regulations to carry out this provision.

§ 6306. APPLICATION OF AMENDMENTS

This section applies the amendments of this title III (geothermal energy development) to existing and future leases.

It is not clear what impact this provision would have. If it overrides the terms of leases currently

in effect, it could have effects under several provisions in this title. For example, it could reduce royalty rates in existing leases from their current levels to 8% and it could eliminate any royalties currently required in leases for low temperature geothermal resources. It is unclear whether this provision could allow lease stipulations added by the Forest Service to be revisited. Other provisions of this title, such as § 6301 (providing three years of royalty relief), § 6305 (opening public lands under military jurisdiction), and § 6308 (providing reimbursement for costs of NEPA analyses) explicitly address their application to existing leases.

§ 6307. REVIEW AND REPORT TO CONGRESS

This section requires DOI to report to Congress on the status of all moratoria on and withdrawals from leasing of known geothermal resources. DOI must specify whether the basis for the ban still applies.

There is no requirement under this bill for DOI to review the status of public lands open to geothermal leasing to determine whether additional lands should be protected from energy development to serve other important purposes.

§ 6308. REIMBURSEMENT FOR COSTS OF NEPA ANALYSES, DOCUMENTATION, AND STUDIES

This section amends the Geothermal Steam Act of 1970 to allow DOI to reimburse lessees and applicants for the costs of environmental analyses they prepare for purposes of the National Environmental Policy Act. The reimbursements will be made through royalty credits and will retroactively apply to royalties from ongoing production under existing leases.

Currently, DOI must complete NEPA analyses before leasing federal lands.²⁷⁵ Due to funding shortfalls, lease applicants often hire third parties to assist in the analyses to expedite the leasing process.²⁷⁶ These private sector costs would be reimbursed by the federal taxpayer under this provision. CBO estimated the costs of this provision in combination with the parallel provision for oil and gas leasing in § 6234.

TITLE IV-HYDROPOWER

§ 6401. STUDY AND REPORT ON INCREASING ELECTRIC POWER PRODUCTION CAPABILITY OF EXISTING FACILITIES

This section requires DOI to study and report to Congress on the potential for increasing electric power production at existing federal hydropower facilities.

§ 6402. INSTALLATION OF POWERFORMER AT FOLSOM POWER PLANT, CALIFORNIA

²⁷⁵*Id.* at 6.

 276 *Id*.

This section authorizes DOI to install a powerformer²⁷⁷ at the Bureau of Reclamation Folsom power plant to replace a generator and transformer. Costs are to be treated as reimbursable and DOI must seek additional contributions towards costs from power users.

§ 6403. STUDY AND IMPLEMENTATION OF INCREASED OPERATIONAL EFFICIENCIES IN HYDROELECTRIC POWER PROJECTS

This section requires DOI to study and report on operational methods and water scheduling at all federal hydroelectric plants greater than 50 megawatts. DOI must determine whether the plants and rivers systems are operated to maximize energy and identify measures to achieve such maximization. DOI may only implement such measures to the extent allowed by law.

This provision directs DOI to maximize power production irrespective of fish and wildlife, other environmental concerns, and other impacts, unless barred by law. Under this provision, wherever DOI has some discretion in weighing various interests, the Department must put power production first.

§ 6404. SHIFT OF PROJECT LOADS TO OFF-PEAK PERIODS

This section requires DOI to review the Bureau of Reclamation's electric power consumption for water pumping and make adjustments to minimize the power consumed during periods of peak electricity consumption. The provision bars DOI from making any such adjustments without the consent of each person with a federal irrigation contract that would be affected.

TITLE V-ARCTIC COASTAL PLAIN DOMESTIC ENERGY

§ 6503. LEASING PROGRAM FOR LANDS WITHIN THE COASTAL PLAIN

<u>§ 6503(a), (b)</u>

These subsections require DOI to carry out a competitive oil and gas leasing program within the Arctic National Wildlife Refuge (ANWR). It repeals the provisions of the Alaska National Interests Lands Act of 1980 that bar leasing in ANWR.

This provision opens the "biological heart" of ANWR to oil and gas development.²⁷⁸ ANWR is the only area on the North Slope that Congress has protected from oil and gas leasing.²⁷⁹ Areas already open to leasing include state lands at Prudhoe Bay and federal public lands in the 23 million acre National Petroleum Reserve-Alaska and the Outer Continental Shelf.²⁸⁰ ANWR was

²⁷⁸Democratic Analysis (July 10, 2001) at 4.

 279 *Id*.

 280 *Id*.

²⁷⁷A powerformer is a high-voltage generator for direct connection to the grid, without any need of a step-up transformer.

first protected as an internationally important wildlife conservation area by the Eisenhower Administration in 1960.²⁸¹ Congress designated the area as a national wildlife refuge in 1980.²⁸²

Although it purports to ensure that ANWR will be developed in a manner that protects the environment, this language will provide no such assurance. While DOI is required to assure "no significant adverse effect," there are no criteria to determine what level of damage is or is not significant. There is also no procedural mechanism to ensure that DOI carries out this mandate in a responsible manner, such as requiring concurrence of the Fish and Wildlife Service or allowing for citizen suits on specific agency decisions. To the contrary, other sections specifically abrogate the procedural protections that would otherwise be provided through NEPA reviews.

<u>§ 6503(c)</u>

This subsection provides that the oil and gas leasing program is compatible with the purposes of the Arctic National Wildlife Refuge, without the need for any further findings or decisions. It also provides that the "Final Legislative Environmental Impact Statement" (April 1987) satisfies the requirements of NEPA for promulgating regulations to establish the leasing program. The Secretary must prepare an environmental impact statement for other actions, but the Secretary must identify only a preferred leasing action and an alternative leasing action, and must analyze environmental effects and potential mitigation for only those two alternatives. DOI may not identify or analyze nonleasing alternatives. This analysis must be completed within 18 months of enactment. DOI may consider only public comments that specifically address the preferred action and are filed within 20 days of publication of the environmental analysis. This subsection provides that notwithstanding any other law, compliance with these requirements satisfies all requirements for analysis and consideration of the environmental effects of leasing.

These provisions override the otherwise applicable environmental protections under the National Environmental Policy Act and other laws. The National Wildlife System Administration Act of 1966 bars activities within a refuge unless they are "compatible" with the conservation purposes of the refuge.²⁸³ This provision deems oil and gas development compatible with the purposes of ANWR by operation of law. Contrary to claims that leasing in ANWR will be more environmentally protective than past leasing actions, these provisions instead drastically restrict existing environmental reviews and opportunities for public participation in decisions about how to minimize impacts on the refuge.

<u>§ 6503(e), (f), (g)</u>

These subsections provide that DOI may designate up to 45,000 (out of 1.5 million) acres of the Arctic Coastal Plain as Special Areas, which are of such unique character to require special

 281 *Id*.

 282 *Id*.

²⁸³See 16 U.S.C.A. 668dd(d); Democratic Analysis (July 10, 2001) at 4.

protection. No other areas may be closed to leasing. DOI must designate the Sadlerochit Spring as a Special Area. DOI must manage Special Areas to preserve their character. Surface occupancy of Special Areas is barred, but DOI may allow horizontal drilling from outside the areas. DOI must promulgate regulations to carry out the leasing program within 15 months of enactment.

The effect of this provision is that a maximum of 3% of the coastal plain may be protected from leasing. This drastically restricts the ability of the Fish and Wildlife Service to manage caribou calving areas, denning areas, nesting areas, and other sensitive areas that are found throughout the 1.5 million acre area.²⁸⁴ Also, this provision does not prohibit intrusive seismic exploration of Special Areas.²⁸⁵

§ 6504. LEASE SALES

This section requires DOI to promulgate rules for leasing procedures. The first lease sale must cover at least 200,000 acres and must be conducted within 22 months of enactment.

§ 6505. GRANT OF LEASES BY THE SECRETARY

This section allows DOI to grant a lease to the highest responsible qualified bidder, and requires DOI's approval prior to transferring a lease.

§ 6506. LEASE TERMS AND CONDITIONS

This section requires royalties of at least 12.5% of the value of production and bars export of the oil produced. Leases must also allow DOI to close portions of the coastal plain to exploratory drilling activities on a seasonal basis for wildlife protection. In addition, lessees must reclaim adversely affected lands to a condition that, as nearly as practicable, is capable of supporting the prior uses or a "higher or better use." Lessees may convey reclamation responsibility and liability to a third party with written approval from DOI. Lessees must use best efforts to provide a fair share of employment opportunities for Alaska Natives, and must employ laborers and mechanics under project labor agreements (this requires use of union labor).

This subsection limits DOI's authority to close portions of the coastal plain on a seasonal basis because it only allows closure to exploratory drilling, not other activities such as seismic exploration that will also negatively impact caribou calving and nesting and denning of other species. Allowing a lessee to delegate reclamation responsibility and liability to a third party increases the potential that reclamation will fail to occur. While the lessees will have substantial financial resources (as is necessary to undertake development activities on this scale), there is no such guarantee for a third party. Nor is there any criteria for DOI's approval of such a

²⁸⁴Democratic Analysis (July 10, 2001) at 5; Trustees for Alaska, *Analysis of Arctic Refuge Section Division F Title V of the Securing America's Future Energy ("SAFE") Act of 2001 (H.R. 4)*, 3 (July 27, 2001) (hereinafter "Trustees for Alaska Analysis").

²⁸⁵Trustees for Alaska Analysis at 3.

delegation.

This subsection also only requires reclamation to support prior uses "as nearly as practicable." This acknowledges that permanent changes to the Refuge may occur and are acceptable.²⁸⁶ Moreover, this includes another loophole by allowing reclamation only sufficient to support "a higher and better use." For example, this language has been used in other areas of America's Arctic to justify large gravel mines in and immediately adjacent to fish-bearing waters under the theory that the deeper waters provide "fish enhancement habitat."²⁸⁷ These provisions make the reclamation requirement effectively unenforceable.

§ 6507. COASTAL PLAIN ENVIRONMENTAL PROTECTION

<u>§ 6507(a), (b), (c)</u>

This section requires DOI to ensure that oil and gas activities in ANWR will result in no significant adverse effect on fish and wildlife, their habitat, or the environment. DOI must require use of the best commercially available technology. No more than 2,000 acres may be covered by production and support facilities, which include airstrips and gravel berms or piers supporting pipelines. DOI must require a site-specific analysis of the effects of drilling and other activities on fish and wildlife, and a plan to minimize or mitigate this to the extent practicable. DOI must consult with agencies with jurisdiction over fish and wildlife and the environment. DOI must promulgate regulations to carry out these provisions, and require compliance with applicable federal and state environmental law.

As in the case of subsections 6503(a) and (b), the environmental protections required under this subsection are vaguely worded. For example, there are no criteria for determining a "significant" adverse effect. Moreover, the 2,000 acre limitation is effectively a facade that would not protect the remainder of the refuge from extensive damage. The limitation applies only to "surface acreage covered by production and support facilities." There is no acreage limit on many other activities that destroy wildlife habitat, such as seismic and other exploration activities, which have had significant impacts on the Arctic environment to the west of the coastal plain.²⁸⁸ Seismic activities are conducted with convoys of bulldozers and "thumper trucks" over extensive areas of the tundra. Exploratory oil drilling involves large rigs and aircraft.²⁸⁹ The 2,000 acre limit also does not include gravel mines, roads, or the miles of pipeline in between the supporting

 287 *Id*.

 289 *Id*.

²⁸⁶Trustees for Alaska Analysis at 4.

²⁸⁸Trustees for Alaska, *Arctic National Wildlife Refuge Oil Field Sprawl: Myths and Facts about "2,000-acre Footprint"* (undated) (hereinafter "Trustees for Alaska, Myths and Facts").

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<u>§ 6507(d)</u>

Under this subsection, DOI must apply standards as effective as the mitigation measures in the "Final Legislative Environmental Impact Statement" (April 1987), must apply seasonal limitations on activities where necessary, must limit exploration activities other than surface geological studies to approximately November 1 through May 1, and must require exploration activities to be supported by ice roads and airstrips. However, DOI may allow exploration at other times if there are special circumstances and DOI finds the activities will have no significant adverse effects on fish and wildlife. DOI must set construction standards for pipelines and roads to minimize to the extent possible adverse effects on caribou and the flow of surface water. DOI must require structures to be removed after operations have ended, unless they can be used for managing ANWR, and must apply appropriate restrictions on access, sand and gravel extraction, and explosives. DOI must require avoidance to the extent practicable of streams and rivers, and must regulate methods for developing adequate water supplies for drilling. DOI must require reduction of air traffic-related disturbance to fish and wildlife, and must require treatment and disposal of hazardous and toxic wastes, solid wastes, reserve pit fluids, drilling muds and cuttings, and domestic wastewater, including a hazardous materials tracking system. DOI must also require fuel storage and oil spill contingency planning, and certain other protective conditions.

Throughout this subsection, the requirements are qualified by terms such as "appropriate," "minimize," and "to the extent practicable," so as to give DOI essentially complete discretion in the extent to and manner in which the agency implements requirements to protect the environment.

<u>§ 6507(e)</u>

This subsection provides that in establishing these regulations and conditions, DOI must consider the conditions included in: the 1999 Northeast National Petroleum Reserve-Alaska Final Integrated Activity Plan/Environmental Impact Statement; the initial coastal plain seismic exploration program under 50 CFR parts 37.31-37.22; and Appendix 2 of the August 9, 1983, agreement between the Arctic Slope Regional Corporation and the United States for drilling on the KIC-ASRC private lands.

<u>§ 6507(f)</u>

This subsection provides that DOI must issue a plan, after public notice and comment, to guide facility siting and construction and encourage consolidation of facilities.

§ 6508. EXPEDITED JUDICIAL REVIEW

This section requires any complaint regarding activity under this title to be filed within 90 days of the date of the action or of the date that the complainant should have known of the grounds for

the complaint. Only the D.C. Circuit Court of Appeals has jurisdiction to review an action of the Secretary. Judicial review of the Secretary's environmental analysis and decision to conduct a lease sale is limited to whether the Secretary has met the terms of this division F. The Secretary's analysis of environmental effects is presumed correct absent clear and convincing evidence to the contrary.

This provision significantly restricts the public's ability to challenge the Secretary's actions in court. Normally, NEPA decisions would be reviewed in the first instance by a district court (either in Alaska or the District of Columbia), not an appeals court. Also, limiting review to whether the Secretary has complied with the terms of this division F will bar challenges to the Secretary's actions under otherwise applicable provisions of environmental laws, such as the National Environmental Policy Act and provisions governing activities in national wildlife refuges. Finally, this section appears to set a very high bar for finding an environmental analysis inadequate by requiring "clear and convincing evidence" to overturn an analysis that is presumed to be correct by operation of law, rather than applying the usual "arbitrary and capricious" standard.

§ 6509. RIGHTS-OF-WAY ACROSS THE COASTAL PLAIN

This section exempts rights-of-way and easements issued for the coastal plain from the requirements of Title XI of the Alaska National Interest Lands Conservation Act of 1980 (16 U.S.C. 3161 et seq.). In lieu of the processes and substantive protections that would have applied under that Act, DOI must include in a right-of-way conditions necessary to ensure no significant adverse effect on fish and wildlife and subsistence resources.

§ 6510. CONVEYANCE

This section requires DOI, notwithstanding § 1302(h)(2) of the Alaska National Interest Lands Conservation Act, to convey certain lands to the Kaktovik Inupiat Corporation and to convey the subsurface estate to the Arctic Slope Regional Corporation.

§ 6511. LOCAL GOVERNMENT IMPACT AID AND COMMUNITY SERVICE ASSISTANCE

This section establishes the Coastal Plain Local Government Impact Aid Assistance Fund and authorizes DOI to give up to \$5 million per year to communities directly impacted by oil and gas development on the coastal plain. The financial assistance may be used only for planning and implementing projects to mitigate the effects of oil and gas development on cultural and other values, and to provide public facilities and services including firefighting, police, water, waste treatment and medical services. Communities may apply to DOI for assistance. The fund is funded through deposit of leasing revenues, up to an amount of \$10,000,000 in the fund.

§ 6512. REVENUE ALLOCATION

This section directs 50% of the revenues from oil and gas production in ANWR to be paid to Alaska and the remainder to be split between the Renewable Energy Technology Investment Fund and the Royalties Conservation Fund, which are established under this section. DOE may use the Renewable Energy Technology Investment Fund for grants, contracts, cooperative agreements and federal research on renewable and alternative fuels including wind, solar, geothermal, and biomass energy. DOE must report to the relevant congressional committees on how it is using the fund. The Departments of Interior and Agriculture may use the Royalties Conservation Fund for grants, contracts, cooperative agreements, and government activities to restore and conserve lands and habitat, including historic properties and urban parks, to maintain and improve federal lands, and to research habitat restoration. These funds are only available to the extent appropriated.

Past experience with the Land and Water Conservation Fund suggests that a substantial portion of these revenues are likely never to be appropriated for these purposes.

TITLE VI-CONSERVATION OF ENERGY BY THE DEPARTMENT OF THE INTERIOR

§ 6601. ENERGY CONSERVATION BY THE DEPARTMENT OF THE INTERIOR This section requires DOI (1) to study and recommend opportunities for the Department to reduce energy use; and (2) to encourage use of alternative energy sources at DOI facilities and on public lands. DOI must report to Congress on the study within 90 days of enactment and must make annual progress reports.

§ 6602. AMENDMENT TO BUY INDIAN ACT

This section amends § 23 of the "Buy Indian Act" (25 U.S.C. 47) to explicitly authorize DOI to purchase energy products and energy by-products of Indian industry.

Current law gives DOI discretion to purchase the products of Indian industry, "including, but not limited to printing," so it is not clear what authority this provision adds.

TITLE VII-COAL

§ 6701. LIMITATION ON FEES WITH RESPECT TO COAL LEASE APPLICATIONS AND DOCUMENTS

This section parallels the § 6224 provisions for oil and gas leases. The Federal Land Policy and Management Act of 1976 (43 U.S.C. 1734, 1764) authorizes an agency to charge reasonable filing and service fees to recover its costs for applications and other documents, such as environmental reviews, relating to public lands. This section would require the federal government, not the applicant, to bear all of the costs of conducting coal leasing of federal lands.

BLM currently recovers a small portion of the costs of leasing through fees for leasing applications and certain related activities.²⁹¹ In addition, BLM has proposed, but not yet

²⁹¹See 43 CFR 3473.2-1.

finalized, a rule to recover considerably more of the costs of leasing federal lands.²⁹² BLM is not projecting a date for finalization of the rule.²⁹³ CBO did not assign any costs to this provision because the proposed rules are not yet in place and BLM has not indicated what existing fees would be negated by this provision.²⁹⁴

§ 6702. MINING PLANS

This section amends § 2(d)(2) of the Mineral Leasing Act (30 U.S.C. 202a(2)) to allow a mining unit to be mined for more than 40 years. The Secretary must find that the longer period will ensure the maximum economic recovery of a coal deposit, or will promote orderly, efficient or economic development of coal resources.

Current law provides that coal leases consolidated into a logical mining unit must be developed within 40 years. This is intended to promote diligent development and production. It also has the effect of limiting the amount of time a particular area is subject to direct and indirect disturbance from mining.

§ 6703. PAYMENT OF ADVANCE ROYALTIES UNDER COAL LEASES

This section amends § 7(b) of the Mineral Leasing Act of 1920 (30 U.S.C. 207(b)) to change the amount and duration of advance royalties. Generally, a lessee must continue operations to retain a coal mining lease, but DOI may allow a lessee to suspend operation and pay advance royalties. Under this section, advance royalties would be based on the average price for coal sold in the spot market from the same region during the last month of each continued operation year. (Currently, advance royalties are computed based on a fixed reserve to production ratio determined by the Secretary, and must be at least as large as the production royalty that would otherwise be paid.) DOI may accept advance royalties in lieu of operation for up to 20 years, instead of the current limit of 10 years. This section deletes the current provision that bars advance royalties paid during the first 20 years of a lease from being applied to reduce production royalties after those first 20 years. It also deletes the current provision allowing the Secretary to cease to accept advance royalties in lieu of operation. Finally, it allows DOI to reduce or waive advance royalties to encourage production or whenever the leases cannot be successfully operated.

This provision appears to allow operators to cease operations when prices are low and pay advance royalties based on those lower prices. Currently, DOI's authority to waive or reduce royalties to encourage production does not apply to advance royalties, presumably because lowering such royalties would have the opposite effect. It is not clear what the rationale is for this provision.

²⁹²See 65 FR 78440.

²⁹³Conversation with BLM staff (Sept. 7, 2001).

²⁹⁴See discussion above at note 258 (§ 6224) regarding the effect of this provision on existing leasing fee requirements.

§ 6704. ELIMINATION OF DEADLINE FOR SUBMISSION OF COAL LEASE OPERATION AND RECLAMATION PLAN

This section amends § 7(c) of the Mineral Leasing Act (30 U.S.C. 207(c)) to remove the deadline for a lessee to submit an operation and reclamation plan for DOI's approval.

Currently, a lessee must submit an operation and reclamation plan within three years from the date a lease is issued. Under this section, the plan would only have to be submitted before taking action that might cause a significant disturbance of the environment. This is a much less concrete requirement, as there could be dispute over which actions could or could not cause something that is or is not a significant disturbance. It is also not certain that this would give DOI sufficient time to act on the plan in a timely manner.

TITLE VIII–INSULAR AREAS ENERGY SECURITY

§ 6801. INSULAR AREAS ENERGY SECURITY

This section amends energy provisions (Public Law 96-597; 94 Stat. 3480-3481) for insular areas (including Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands) to require updated energy plans and plans for protecting transmission and distribution lines from hurricane damage. DOI must give Congress the updated plans by May 31, 2003. This section also authorizes DOI to make matching fund grants (of up to 75% of the project cost) to governments of U.S. territories for projects to protect transmission and distribution lines from hurricane damage. The projects must meet specified criteria regarding need and cost. This authorizes \$5,000,000 per fiscal year.

DIVISION G

§7101. BUY AMERICAN

This section bars giving any funds authorized under this bill to any entity that has been convicted of violating the Buy American Act.