

Summary of the Energy Bill (Conference report to HR 6)¹

UCS and the Energy Bill

The Energy Policy Act of 2005, signed into law by President Bush on August 8, was the product of over 4 years of congressional consideration. Two earlier versions of the legislation died in conference in 2002 and 2003. This year, however, a bipartisan bill was approved by the House in April, the Senate in June, and with remarkable speed, was sent to the President in July.

UCS has been at the forefront of the debate over the future of the nation's energy policy. Despite all of our hard work, however, the Congress chose to largely follow the path of a 19th century fossil-fueled past instead of crafting an energy bill for the 21st century that would lead us to a clean energy future. UCS opposed the bill because it fails to reduce our dependence on oil, fails to address global warming, fails to reduce home heating and gasoline prices, fails to significantly increase the deployment of renewable energy and actually increases the threat of nuclear terrorism.

UCS was actively engaged in many parts of the energy bill debate. We deployed our organizing, advocacy, analytical and media tools to influence the outcome. While UCS had some major victories and some unfortunate defeats, we are proud of what we were able to accomplish in this difficult political climate.

Victories

- **Consumer Tax Credits for Fuel Efficient Vehicles.** After many years of UCS-led coalition work, consumer tax credits for hybrids and other advanced technology vehicles (from passenger cars up to heavy-duty trucks and buses) were finally enacted. Although the tax credits are not as strong as we had hoped, establishing credits for advanced vehicle technologies based on both fuel economy and emissions performance is a significant achievement. To see what credit each current hybrid vehicle on the market will receive, please visit our [HybridCenter.org incentives listing](http://HybridCenter.org/incentives_listing).
- **Renewable Energy Production Tax Credit.** Tax credits for wind and biomass were extended for two years and additional tax credits made available for other renewables including solar, geothermal, and ocean energy. In addition, we were successful in defeating an amendment offered by Senator Alexander (R-TN) that would have prevented the development of new wind facilities by imposing impossible siting requirements.
- **Clean School Bus EPA Grant Program.** After four years of leading a unique coalition of industry and NGO's, we were successful in enacting an EPA grant

¹ Prepared by the Union of Concerned Scientists, Legislative Staff, August, 2005 including Julie Anderson, Climate Campaign, Marchant Wentworth, Clean Energy, Michelle Robinson, Clean Vehicles, Edwin Lyman, Global Security with special thanks to Michael Goggin, our Clean Energy intern. For more information contact: Marchant Wentworth, Legislative Representative, Mwentworth@ucsusa.org, 202-331-5448.

program to allow school districts to replace their oldest, dirtiest school buses with cleaner alternatives and retrofit newer diesel buses with emissions control equipment. UCS's School Bus Report Card was the catalyst for this action.

- **Diesel Retrofit EPA Grant Program.** In addition to the school bus program, UCS worked with coalition members and Senator George Voinovich (R-OH) to authorize a \$1 billion program to help fund emission control equipment for different types of diesel vehicles across the country - from construction equipment to delivery trucks.

Defeats

- **Strengthening Fuel Economy Standards.** Not only did the House and the Senate overwhelmingly oppose increasing fuel economy standards, they also extended the “dual-fuel vehicle” loophole giving automakers credit for producing vehicles capable of running on alternative fuel but that almost never do. This provision will increase our gasoline consumption by 10 billion gallons through 2015! Ironically this amount will wipe out the savings the administration claims will be achieved by adoption of proposed changes to fuel economy regulation.
- **Renewable Electricity Standard.** Despite the 31,000 last-minute letters from UCS activists around the country, the final bill excluded a Renewable Electricity Standard that would have required major electric utilities to gradually increase their use of clean renewable energy such as wind, solar, and bioenergy. Although the renewables standard passed the Senate with bi-partisan support, House leadership stripped it from the final bill. One highlight was the support of the RES by Senators Domenici (R-NM) and Hatch (R-UT) during the conference debate.
- **Strengthening Export Controls on Highly Enriched Uranium.** The bill removes an existing requirement that recipients of highly enriched uranium – purchased for producing medical isotopes – commit to converting to the use of low enriched uranium when feasible. This misguided provision would lead to unnecessary shipments of nuclear weapons-usable materials abroad, where they are vulnerable to theft by terrorists seeking to make nuclear bombs.
- **Enacting Mandatory Global Warming legislation.** While the bill does not include any real action on global warming, for the first time, global warming was an integral part of the Senate's debate about our nation's energy future. And, for the first time, a majority of Senators (53-44) supported a non-binding resolution calling for mandatory action to address global warming. UCS worked in support of the resolution that was supported by the energy bill leaders Senators Domenici (R-NM) and Bingaman (D-NM).
- **Balanced Tax Package.** Unfortunately, the 2005 energy bill is heavily weighted toward the traditional oil, gas, coal and nuclear power industries. The tax title was particularly lopsided in its approach. Of the \$14.5 billion tax package, renewable energy and energy efficiency received only \$4.5 billion while fossil fuels received \$5.6 billion and nuclear power received \$1.3 billion.

Where We Go From Here

Even before Hurricane Katrina developed, there was talk of Congress doing another energy bill when they returned from the August recess to address ever-increasing gas and energy prices. Since Katrina hit the US, House and Senate leaders have already begun hearings and many are calling for a second energy bill. The issues being discussed include: raising fuel economy standards and closing existing loopholes in the regulatory system and the tax code, opening up ANWR for drilling, opening up the outer continental shelf to exploration and providing incentives to building refineries. These efforts are just beginning to get underway and it is difficult to predict how much Katrina might shake up the political status quo on these issues. UCS is engaged in discussions with the community, the Hill and others and we are assessing the risk and opportunities of a bill dealing with both supply and conservation measures.

Climate Change is also continuing to get attention on the Hill. Chairman Domenici and Senator Bingaman are continuing to hold hearings on climate policy. The strength of Hurricane Katrina has also provided an opportunity to get the global warming issue front and center. UCS is working on a number of fronts: (1) we are conducting a substantial radio tour talking about the connection between climate and hurricanes, (2) we are working with the community to develop a grassroots campaign to promote mandatory action to reduce global warming, and (3) we are engaged in a number of forums to help further develop climate policies. You will be hearing more from us on all these issues.

Details of the 2005 Energy Bill

Below is a detailed list of the good, the bad and the ugly parts of the Energy Policy Act of 2005.

Highlights of the Energy Policy Act of 2005

Nuclear

Title VI: Nuclear Matters:

- Weakens export controls on highly enriched uranium by removing the current requirement that recipients commit to converting to low enriched uranium when feasible.²
- Extension of Price-Anderson Act liability cap for nuclear incidents through the year 2025.³
- Provides financial support to cover costs associated with delays in the commencement of operations at a nuclear power plant caused by litigation or the failure of the NRC to meet the schedule for regulatory approval. This measure covers 100 percent of these costs at the first two nuclear plants, capped at \$500

² http://energy.senate.gov/public/_files/PostConferenceBillSummary.doc

³ <http://www.ne.doe.gov/EPAAct2005/summary.html>

million for each plant, and 50 percent of these costs at the next four plants, capped at \$250 million for each plant.

- Authorizes \$1.25 billion for a prototype reactor at the Idaho National Laboratory that will produce both electricity and hydrogen.

Title IX: Research and Development:

- Authorizes a research, development, and demonstration project for proliferation-resistant advanced fuel recycling and transmutation technologies.
- Initiates a research and development program to make nuclear facilities secure against terrorist attacks.

Title XIII: Energy Policy Tax Incentives:

- Creates a production tax credit of 1.8 cents per kWh to a qualified advanced nuclear power facility placed in service in the 8-year period after enactment of the Act. The EIA estimates the actual value of the nuclear tax subsidy to be \$7 billion when the full lifetime cost of the nuclear production tax credit is included.

Coal

Title IV: Coal:

- The Clean Coal Power Initiative: Authorizes \$200 million per year from 2006 to 2014 for federal government cost share program to conduct demonstrations of commercial scale advanced clean coal technologies.⁴
- The Clean Air Coal Program: Authorizes a \$3 billion commercial deployment program to encourage the generation of new sources of advanced coal-based power and upgrade existing sources of coal-based power by retrofitting existing plants with pollution control equipment to improve air quality.

Title IX: Research and Development:

- Coal Research and Development Program: Authorizes approximately \$1.1 billion over FY 2007-2009 for the Department of Energy clean coal research and development program.⁵
- Carbon Capture Research and Development Program: Authorizes \$90 million over FY 2007-2009 for a DOE program to develop carbon capture technologies that can be applied to the existing fleet of coal units.

Title XIII: Energy Policy Tax Incentives:⁶

- Credit for investment in clean coal facilities. No tax credit for clean coal facilities under present law. Provision establishes three investment tax credits for clean coal facilities: a 15 percent and 20 percent investment tax credit for clean coal facilities producing electricity; and a 20 percent credit for industrial gasification projects. Integrated gasification combined cycle (IGCC) projects get a 20 percent investment tax credit and other advanced coal-based projects that produce

⁴ www.coal.org/PDFs/072905EnergyBillCoal.pdf

⁵ www.coal.org/PDFs/072905EnergyBillCoal.pdf

⁶ http://energy.senate.gov/public/_files/PostConferenceBillSummary.doc

electricity get a 15 percent credit. The Secretary may allocate up to \$800 million for IGCC projects and up to \$500 million for other advanced coal-based technologies and up to \$350 million for industrial gasification. Also clarifies that lignite is a qualifying coal. **Cost: \$1.612 billion**

- Provides a 7-year recovery period for the cost of certain certified air pollution control facilities at primarily coal fired and which was not in operation before January 1, 1976.

Renewables

Title II: Renewable Energy:

- Requires the Secretary of the Interior to study the potential of developing wind, solar and ocean energy resources on available federal land. Also directs the Secretary of Energy to annually review the available assessments of renewable energy resources within the United States, including solar, wind, biomass, ocean (tidal, wave, current, and thermal), geothermal and hydroelectric energy resources.⁷
- Extends the Renewable Energy Production Incentive (REPI), which makes nonprofit electric utilities eligible to receive the renewable energy Production Tax Credit.⁸
- Requires the Federal government to purchase 7.5% of its electricity from renewable sources by 2011.
- Creates two grant programs to encourage the production of electric energy or heat from biomass and to improve biomass utilization technology on Indian lands.
- Reforms the hydropower licensing process of the Federal Power Act, revives a DOE program to develop small hydropower projects, and provides incentives for increased production of hydropower through efficiency improvements at existing facilities.
- Authorizes projects on federal lands, on a cost-share basis with local utilities, to reduce dependence on fossil fuels used in the generation of electricity.

Title IX: Research and Development:

- \$2.227 billion over FY 2007-2009 for cutting-edge research and development in renewable energy, including bioenergy from cellulosic feedstocks, concentrating solar power, ocean energy, and cogeneration of hydrogen and electricity from renewable sources.⁹

Title XIII: Energy Policy Tax Incentives:¹⁰

⁷ <http://www.renewableenergyaccess.com/rea/news/story?id=35104>

⁸ http://energy.senate.gov/public/_files/PostConferenceBillSummary.doc

⁹ <http://www.aaas.org/spp/rd/doe05auth.htm>;

http://energy.senate.gov/public/_files/PostConferenceBillSummary.doc

¹⁰ http://energy.senate.gov/public/_files/PostConferenceBillSummary.doc

- Extension and modification of the 1.8 cent per kWh renewable Production Tax Credit. Extends placed-in-service date by two years (through December 31, 2007) for qualifying facilities: wind facilities; closed-loop biomass facilities; open-loop biomass facilities; geothermal facilities; small irrigation power facilities; landfill gas facilities; and trash combustion facilities. Qualifying facilities receive credits per kWh for electricity produced over a 10-year period. Hydropower and Indian coal are added as new qualifying energy resources. Allows eligible cooperatives - more than 50 percent owned by agricultural producers or entities owned by agricultural producers- to elect to pass any portion of the renewable electricity production credit to their patrons.
- Clean Renewable Energy Bond (“CREBs”). CREBs are defined as bonds issued by qualified issuer if, in addition to other requirements, 95 percent of proceeds are used to finance capital expenditures incurred for facilities qualifying for the renewable production tax credit. Qualified issuers include governmental bodies (including Indian tribal governments) and mutual or cooperative electric companies. Provision is effective for bonds issued after December 31, 2005.
- Creates an investment tax credit for purchases of solar photovoltaic and solar water heating technologies. The credit covers 30% of the cost of the solar technologies and applies to items installed during 2006-2007. The credit is capped at \$2000 for each solar system for residential facilities, while commercial facilities have no cap.¹¹

Vehicles

Title VII: Vehicles and Fuel

- The National Clean School Bus Grant Program establishes a national grant program authorizing \$55 million a year for the first two fiscal years (then such sums as may be necessary in subsequent years).
- The Diesel Emissions Reduction Act, is a national diesel retrofit incentive program that provides \$200 million for each of fiscal years 2006 through 2010, to remain available until expended to establish voluntary national grant and loan programs for diesel emission reduction projects across all heavy-duty on-road and off-road vehicles.
- Authorizes \$200 million for an advanced vehicle program. This program, operating under the current Department of Energy “Clean Cities” program, would provide grants to state and local governments to acquire alternative fueled and fuel cell vehicles, hybrids and other vehicles, including ultra-low sulfur diesel vehicles. The program will last five years.
- Changes to EPACT fleet rule definitions: Requires public fleet “dual-fueled” vehicles acquired under the Energy Policy Act of 1992 (EPAct) to be operated on alternative fuels, includes certain low-speed electric vehicles in EPAct, provides additional credits for medium and heavy duty alternative fuel vehicles, and

¹¹ <http://www.seia.org/getpdf.php?iid=21>

increases incentives for the purchase and use hybrid vehicles and for investment in alternative fuel infrastructure.

- Dual-Fuel Fuel Economy credits: Extends through 2014 a loophole that allows automakers to garner credit toward meeting fuel economy standards for production of vehicles that can run on alternative fuels, but rarely do. Automakers get up to 1.2 mpg credit through 2010 with the potential for NHTSA to continue the program at .9 mpg through 2014.
- Includes a study, to be done by the National Highway Traffic Safety Administration (NHTSA), to look into alternatives to the CAFE program and examine the amount of fuel consumed by automobiles.

Title XIII: Energy Policy Tax Incentives:

- Alternative Fuel Vehicles: The provision permits the credit to offset the excess of the regular tax over the alternative minimum tax.
- Hybrid vehicles and advanced lean-burn technology vehicles: The amount of credit is the sum of two components: a fuel economy credit amount that varies with the rated fuel economy of the vehicle compared to a 2002 model year standard and a conservation credit based on the estimated lifetime fuel savings of a qualifying vehicle compared to a comparable 2002 model year vehicle. New tax credits for advanced vehicle technologies range from \$250 to \$3,400 depending on the vehicle's level of fuel economy improvement. The full tax credit will be available until a manufacturer reaches 60,000 hybrid vehicles sold. Once a manufacturer has sold 60,000 vehicles, a one-year "phase out" will begin after the next complete calendar quarter; 50% of the credit will be available for that manufacturer's hybrids in the first two quarters of the phase-out period and 25% in the final two quarters.

Title XV: Ethanol and Motor Fuel

- Includes increased funding to \$6 million over five years (2006-2010) for the Department of Transportation to continue its work on improving Corporate Average Fuel Economy (CAFE) standards.
- Includes a study, to be done by the National Highway Traffic Safety Administration (NHTSA), to look into alternatives to the CAFE program and examine the amount of fuel consumed by automobiles.

Hydrogen

Title VIII: Hydrogen

- Authorizes \$2 billion over five years for a research program.¹²
- Provides \$1.3 billion over five years for hydrogen and fuel cell demonstrations that include vehicles, stationary, and portable applications.
- Provides \$450 million in market transition programs for stationary, portable, and micro fuel cells and hydrogen energy systems.

¹² http://energy.senate.gov/public/_files/PostConferenceBillSummary.doc;
<http://www.electricdrive.org/index.php?tg=articles&idx=More&topics=127&article=791>

- Requires enhanced public education and university research in fundamental sciences, application design and systems concepts, including materials, subsystems, manufacturability, maintenance and safety.
- Authorizes \$38 million over five years to develop safety codes and standards related to fuel cell vehicles, hydrogen energy systems, and stationary fuel cells.
- Provides \$105 million to promote state and federal procurement of fuel cell vehicles, \$50 million for a fuel cell bus demonstration program, and \$75 million for a fuel cell school bus program.

Electricity

Title IX: Research and Development:

- \$778 million over FY 2007-2009 for distributed energy and electricity transmission. Requires the Secretary to conduct research and development efforts to ensure the reliability, efficiency, and environmental integrity of the nation's electrical transmission and distribution systems.¹³

Title XII: Electricity:¹⁴

- Amends the Public Utility Regulatory Policies Act of 1978 (PURPA). It repeals the requirement for mandatory purchase from qualifying facilities by electric utilities if a competitive market exists and establishes new criteria for qualifying cogeneration facilities.
- Repeals the Public Utility Holding Company Act of 1935 (PUHCA) to encourage investment in the nation's electricity infrastructure.
- Bans market manipulation; prohibits false statements; addresses market transparency; increases penalties for violations of the Federal Power Act; changes the refund effective date from 60 days after the date of filing to the date of filing; protects consumers against unfair trade practices; protects utility customers affected by the Enron bankruptcy from unfair contract termination fees by authorizing FERC to review the issue.

¹³ <http://www.aaas.org/spp/rd/doi05auth.htm>; senate by title

¹⁴ http://energy.senate.gov/public/_files/PostConferenceBillSummary.doc