



December 5, 2007

A New Direction for Energy Security

The New Direction Congress is poised to pass a historic and sweeping bill to put us on a path toward energy independence. The Energy Independence and Security Act will: increase American energy independence, strengthen national security, lower energy costs, grow our economy and create new jobs, and reduce global warming.

The Energy Independence and Security Act:

- Increases the efficiency of vehicles to 35 miles per gallon by 2020, for the first time in a generation;
- Makes an historic commitment to American-grown biofuels;
- Requires for the first time that 15 percent of our electricity come from renewable sources;
- Improves energy efficiency of a wide range of products, appliances, lighting and buildings; and
- Invests in clean renewable and alternative energy tax incentives to build viable markets and create jobs.

Not only would this reduce our dependence on foreign oil, the measure would also save consumers billions of dollars.

This agreement with the Senate builds on the New Direction for Energy Independence, National Security, and Consumer Protection Act (H.R. 3221, and H.R. 2776) passed this summer, which includes wide-ranging solutions from 10 House committees. With passage of this measure, we are reducing carbon emissions that cause climate change and increasing our energy independence. The House will move forward next year with the next major effort to reduce global warming.

Improve Vehicle Fuel Economy – Title 1

- This bill provides historic fuel economy standards for cars and trucks – provisions supported by environmentalists, labor and the automobile industry.
- The price at the pump demands these groundbreaking and historic provisions to increase the fuel economy standard to **35 miles per gallon in 2020** for new cars and trucks.
- These provisions will save American families \$700 - \$1000 per year at the pump, with \$22 billion in net consumer savings in 2020 alone.
- This is the first increase in the fuel economy standard by Congress since 1975 – marking a significant advancement in our efforts to address our energy security and laying the groundwork for climate change legislation next year.
- The bill ensures that fuel economy standards will be reached, while offering flexibility to automakers and ensuring that we keep American manufacturing jobs and continue domestic production of smaller vehicles.
 - Allows automakers to calculate the mileage based on the attributes of vehicles and to distinguish between cars and trucks.
 - Requires manufacturers to maintain a fleet wide average of 35 miles per gallon by 2020 with no exceptions.

- Includes incentives for manufacturers to build small cars in the U.S. -- preserving approximately 17,000 domestic assembly plant jobs
- Extends through 2019 the credits for automakers producing flex-fuel vehicles.
- Maintains auto jobs by providing domestic automakers with grants to retool plants.
- These provisions will reduce oil consumption by 1.1 million barrels per day in 2020 (one-half of what we currently import from the Persian Gulf), and reduce greenhouse gases equal to taking 28 million of today's average cars and trucks off the road.
- The current CAFE standard is around 27.5 miles per gallon for cars and just over 22 miles per gallon for light trucks, a level which has been in force since 1985.
- The bill also includes provisions to encourage the domestic development and production of advanced technology vehicles and the next generation of vehicle batteries and plug-in hybrid vehicles and require the reduction of petroleum consumption and greenhouse gas emissions for the federal fleet.

Increased Production of Biofuels – Title II

- The bill increases the Renewable Fuels Standard, which sets annual requirements for the amount of renewable fuels produced and used in motor vehicles. Under the bill, the expanded renewable fuels standard (RFS) requires 9 billion gallons of renewable fuels in 2008 and progressively increases to a 36 billion gallon requirement by 2022.
- Ensures that biodiesel and cellulosic sources, such as switchgrass, are a key part of that increase, while allowing other technologies to come on line. Beginning in 2016, an increasing portion of renewable fuels must be advanced biofuels, starting at 3 billion gallons in 2016 and increasing to 21 billion gallons in 2022. There have been advances in using a range of farm products—from switchgrass to woodchips and even algae—for a promising future for biofuels grown or processed all across America.
- Includes critical environmental safeguards to ensure that the growth of homegrown fuels help to reduce carbon emissions. Under the bill, conventional biofuels will be required to emit 20 percent fewer lifecycle greenhouse gas emissions compared to gasoline, and the bill includes protections to ensure that increased use of biofuels will not harm our air or water quality.
- Promotes investment in renewable fuels infrastructure and supports research and development of new bioenergy sources.
- Invests in biofuels research to make biofuel production more efficient, and environmentally sound -- creating a new research component to improve the energy efficiency in biorefinery facilities to reduce energy consumption in the development of biofuels.
- Invests in cutting-edge research to develop new processes for turning other farm products, such as switchgrass and woodchips, into biofuels.
- Includes a variety of studies to improve the use of biofuels, focusing on optimization of flex-fuel vehicles while running on E-85, and engine durability at differing blend levels of biodiesel.
- Takes steps to improve distribution of biofuels by studying the adequacy of railroad infrastructure for the delivery of ethanol as well as the feasibility of the construction of dedicated ethanol pipelines. Transporting ethanol has been a hindrance to widespread use of ethanol across the nation.

Renewable Electricity Standard – Title XIV

- Establishes a 15 percent national renewable electricity standard (RES). This market-based mechanism will require electric utilities to use renewable energy to generate 15 percent of their electricity or to purchase renewable energy credits from others to meet this standard by 2020.
- Consumer Savings: \$13-18 billion in cumulative consumer savings by 2020. Energy bills also would be lower in all 50 states.
- Global Warming Benefits: a reduction in global warming emissions by 84-126 million metric tons per year by 2020 (equivalent to taking 10 million - 15 million vehicles off the road).
- More than one-half of the states have already enacted a renewable energy standard.
- Renewable energy that counts toward meeting the standard is broadly defined and includes the following: biomass (cellulosic organic materials; plant/algal matter from agricultural crops, crop byproducts, or residues or landscape waste and trimmings; animal waste and animal byproducts; landfill gas; all types of

crop-based liquid fuels), incremental hydropower, solar, hydrokinetic, wind, ocean/tidal, geothermal, distributed energy, and PURPA qualifying facilities.

- The measure exempts municipal and other publicly-owned power plants, federal agencies and rural electric coops and small private utilities.
- Permits utilities to use energy efficiency savings to meet up to 4 percent of their targeted 15 percent and to give utilities more time to ramp-up renewable energy sales.

Clean Renewable Energy & Conservation Tax Act – Title XV

- Includes \$9 billion in clean renewable tax incentives with
 - long-term incentives spurring the production of electricity from renewable sources, including wind, biomass, geothermal, small irrigation hydropower, ocean tides, landfill gas, and trash combustion resources.
 - \$2 billion in new clean renewable energy bonds for electric cooperatives, public power providers, and state and local governments to finance facilities that generate electricity from renewable resource.
 - Tax incentives for solar energy, including extending the solar energy and fuel cell investment tax credit (for 8 years) and strengthening the tax credit for installing solar panels in your home.
- Helps working families afford fuel-efficient plug-in hybrid and electric vehicles with a \$3,000 tax credit and also includes tax incentives for biking to work.
- Provides up to \$3 billion for States and local tax credit bonds to implement low-interest loan programs and grant programs to help working families purchase energy-efficient appliances, make energy-efficient home improvements, or install solar panels, small wind turbines, and geothermal heat pumps.
- Provides incentives for manufacturers to build appliances that push the boundaries of efficiency, and promotes more energy efficient homes, appliances, and commercial building by extending energy efficiency tax incentives and promoting the use of smart meters.
- Includes \$2.2 billion in tax incentives for clean coal technology, which for the first time ever **will** require carbon capture and sequestration.
- Contains incentives to expand production of homegrown fuels, including creating a new production tax credit for cellulosic ethanol, such as switchgrass, corn stover, cereal straws, sugar cane, sawdust and paper pulp, as well an extension of the biodiesel tax credit and a long-term extension of the renewable energy production tax credit, which includes closed-loop and open-loop biomass, and wind.

Upholding Fiscal Responsibility and Bipartisanship

- This legislation does not add to the deficit and all revenue offsets resulted from bipartisan negotiations.
- Revenue raisers include \$13 billion in scaled-back provisions that repeal tax breaks that were needlessly given to Big Oil companies at a time of record profits. The bill also includes other revenue raisers from the President's budget.
- Specifically, the bill closes a loophole written into the international tax bill (H.R. 4520) and rolls back the 2005 Energy Bill tax break for geological and geophysical expenditures. These provisions are narrowly targeted toward the large integrated oil companies.
- In addition, to ensure that oil and gas companies are paying their fair share of taxes, it closes a tax loophole that allows big oil and gas companies to game the system by understating their foreign oil and gas extraction income.
- Other revenue raisers in the bill come from the President's budget and from bipartisan negotiations with the Senate, the largest of which strengthens reporting on the value of stock to make sure that gains are taxed.

Energy Savings Through Improved Standards for Appliance and Lighting -- Title III

- In landmark efforts to strengthen energy efficiency, sets new efficiency standards for appliances such as refrigerators and freezers, requires more efficient lighting, and works to speed up Energy Department action on new efficiency standards, after six years of reversal and delay of critical efficiency standards.
- Improves energy efficiency of consumer appliances, such as dishwashers, clothes washers, refrigerators and freezers, to reduce energy costs to consumers.
- If, in the future, the Department of Energy takes more than 2 years to finalize new efficiency standards, then States can act on their own standards.

- Requires the Federal Government to substitute energy-efficient lighting for incandescent bulbs.

Energy Savings in Buildings and Industry – Title IV

- Requires improved Federal and commercial building energy efficiency, with green building standards for new federal buildings and a zero net energy initiative to develop technologies, practice and policies to reach the goal of having all commercial buildings use no net energy by 2050.
- Includes new incentives to promote industrial energy efficiency – through converting waste (such as exhaust heat) from industrial facilities into electricity.
- Increases funding for the Weatherization Program through 2012 to assist consumers with weatherizing their homes and establishes energy efficiency standards for manufactured housing.

Energy Savings in Government and Public Institutions – Title V

- Promotes and strengthens accountability in the federal government’s use of Energy Savings Performance Contracts – in which energy saving improvements in federal buildings are financed through savings from the resulting reduced energy costs -- with more flexible financing and better training of federal contracting officers.
- Strengthens the energy efficiency of the federal government – promoting the purchase of energy efficient products, and procurement of alternative fuels with lower carbon emissions – with reports on the success of those efforts, along with taxpayer savings.
- Reauthorizes state energy grants to address state’s energy priorities and adopt emerging renewable energy and energy efficiency technologies through FY 2012.
- For cities, counties, and states, establishes an Energy and Environment Block Grant to be used for seed money for innovative local best practices to achieve greater energy efficiency and lower energy usage. These grants would fund local initiatives, including building and home energy conservation programs, energy audits, fuel conservation programs, building retrofits to increase energy efficiency, "Smart Growth" planning and zoning, and alternative energy programs.
- Builds on the Speaker’s “Greening of the Capitol” initiative with provisions such as installing an E-85 refueling station for the Capitol.

Alternative Energy Research & Development – Title VI

- Strengthens solar research, education, and training by targeting current gaps in unleashing the potential of **solar power**. It includes training to develop a skilled workforce to install and maintain solar energy equipment, and research and development to improve technologies to store solar power.
- Supports **marine renewable energy** research and development of technologies to produce electric power from ocean waves in order to bring them to commercial readiness.
- Authorizes the research and development of technologies to locate and develop **geothermal energy** resources – the vast untapped potential for electric power from steam and hot water inside the earth.
- Awards cash prizes to spur innovation in **hydrogen energy** technologies and advance the use of hydrogen as a fuel for transportation.
- Authorizes a research and development program on energy storage and advanced battery development for vehicles and electricity transmission.

Carbon Capture and Sequestration – Title VII

- Takes aggressive steps on carbon capture and sequestration to come up with a cleaner way to use coal.
- Authorizes a nationwide assessment of geological formations capable of sequestering carbon dioxide underground.
- Includes expansive research and development, including large-volume sequestration tests in a variety of different geological formations.
- Includes grants to demonstrate technologies for large scale capture of carbon dioxide from industrial sources.

Improved Management of Energy Policy -- Title VIII

- Bans oil companies from engaging in market manipulation or providing false information about price in the wholesale petroleum markets, and imposes new civil and criminal penalties for oil companies that break these rules.
- Establishes a goal to improve overall U.S. energy productivity by at least 2.5 percent by 2012 and require the Secretary of Energy to submit a strategic plan to Congress biennially to ensure compliance with these goals;
- Authorizes a media campaign to educate consumers about efficiency and conservation and to increase energy efficiency and reduce energy consumption in the United States.
- Requires nationwide assessment of geothermal resources.

International Energy Programs– Title IX

- To reduce global greenhouse emissions worldwide, directs the federal government to promote U.S. energy exports in clean, efficient technologies to India and China and other developing countries.
- Authorizes USAID to increase funding to promote clean energy technologies in developing countries, and promotes the export of clean and efficient American energy technologies through several US agencies, including the International Trade Administration (Commerce Department), Overseas Private Investment Corporation (OPIC), and the US Trade and Development Agency (USTDA).
- Includes U.S.-Israel Energy cooperation – authorizing joint energy projects between American and Israeli businesses, scientists and academics to research, develop and commercialize alternative energy sources, improved energy efficiency and renewable energy sources.

Green Jobs -- Title X

- Creates an Energy Efficiency and Renewable Energy Worker Training Program to train a quality workforce for “green” collar jobs -- such as solar panel manufacturer and green building construction worker -- created by federal renewable energy and energy efficiency initiatives.
- This program will provide training opportunities to our veterans, to those displaced by national energy and environmental policy and economic globalization, to individuals seeking pathways out of poverty, to at risk youth and to those workers in the energy field needing to update their skills.
- A major national investment in renewable energy could create 3 million green collar jobs.

Energy Transportation and Infrastructure – Title XI

- Takes action to cut energy use and carbon emissions, including provisions encouraging states to carry out transportation projects that reduce air pollution.
- Creates a Transportation Department Office of Climate Change and Environment to plan, coordinate, and implement research, strategies, and actions to reduce transportation-related energy use and mitigate the effects of climate change.
- Promotes short-sea shipping as an alternative to land-based freight transportation and includes capital grants for railroads for more efficient transportation.

Small Business Energy Programs – Title XII

- Increases loan limits to help small businesses develop energy efficient technologies and purchases; provides information to small businesses to reduce energy costs; and increases investment in small firms developing renewable energy solutions, recognizing the leadership of entrepreneurs in the alternative energy sector.

Smart Grid -- Title XIII

- Creates a "Smart" electric grid to modernize and strengthen the reliability and energy savings of our electricity supply.