



U.S. HOUSE OF REPRESENTATIVES

GOP

ACCOMPLISHMENTS

110TH CONGRESS

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Overview of Republican Accomplishments and Priorities in the 110th Congress



Advancing America's Energy Security

Republicans on the Science and Technology (S&T) Committee promoted American Energy Independence during the 110th Congress by not choosing energy winners and losers. S&T Republicans understand that all of our domestic energy options are necessary if we are serious about keeping billions of dollars here in the U.S., versus sending those funds overseas. S&T Republicans introduced legislation and offered amendments supporting the “all of the above” approach to energy, which includes calling for increased energy conservation, efficiency, domestic production of oil and gas, coal, wind, solar, biofuels, nuclear energy, and enhanced research and development of renewable and alternative energy.



Promoting Energy Efficient Technologies

Republicans support the development of technologies to help reduce our energy consumption. In many cases, technologies are ready for every day use, but it's a matter of getting them to the market. S&T Republicans passed legislation to help move these energy efficient technologies from the lab and into the hands of consumers.

- **H.R. 1716** - Green Energy Education Act of 2007
Introduced by **Rep. Michael McCaul (R-TX)**, this legislation authorizes DOE to partner with the National Science Foundation to help universities train the next generation of engineers and architects to develop energy efficient technologies for buildings. H.R. 1716 unanimously passed the House on June 6, 2007.
- **H.R. 3776** - Energy Storage Technology Advancement Act of 2007
Borrowing language from **Ranking Member Hall's** Energy for America Act, H.R. 3776 establishes research, development, and demonstration programs focused on advanced energy storage systems to support the efficient delivery and use of energy. This bill was signed into law as part of the Energy Independence and Security Act of 2007.
- **H.R. 85** - Energy Technology Transfer Act
Introduced by **Rep. Judy Biggert (R-IL)**, this legislation provides for the establishment of centers to encourage demonstration and commercial application of advanced energy methods and technologies. This important bill became Public Law 110-229.

Supporting Domestically Produced Oil and Gas

S&T Republicans recognize that oil and gas will continue to play a significant role in America's energy portfolio for years to come. While America expands its suite of domestically produced energy, we cannot ignore the vast resources of oil and natural gas within our own borders.

- **H.R. 2304** – The Advanced Geothermal Energy Research and Development Act
Ranking Member Hall successfully amended this legislation to include a demonstration program, the goal of which is to prove the feasibility of co-producing geothermal power from oil and gas fields. In addition to gas, these resources hold tens of thousands of megawatts of potential energy in hot geothermal fluids and hydraulic pressure. The Energy Independence and Security Act of 2007 included the geothermal provisions, which became part of Public Law 110-140.
- **H.R. 2339** – The Produced Water Utilization Act of 2007
Introduced by **Ranking Member Hall**, the bill establishes a research, development, and demonstration program to advance the beneficial reuse of water produced in connection with oil and gas extraction. The United States holds an enormous reserve of energy from oil and natural gas within its borders – both on land and in offshore development areas. However, for every barrel of oil produced, extraction of these vital domestic resources produces ten barrels of saline, brackish and generally unusable water. The U.S. currently generates over 5 billion gallons of produced water every day. This water is, to a large extent, currently unusable and environmentally hazardous and presents added costs to our domestic producers. H.R. 2339 passed the House on July 30, 2008 by voice vote.

Advancing Alternative Sources of Energy

S&T Republicans support the development of alternative sources of energy through increased research and development. These fuels have the potential to play a larger role as technologies develop, and to help decrease American dependence on foreign oil.

- **H.R. 632** - H-Prize Act of 2007
First introduced in the 109th Congress by **Rep. Bob Inglis**, this legislation establishes a monetary prize for breakthrough technologies supporting the development of a hydrogen fuel economy. The bill passed in the 110th Congress by a vote of 408-8 and was signed into law as part of the Energy Independence and Security Act of 2007.
- **H.R. 5618** - National Sea Grant College Program Amendments Act of 2008
An amendment offered by **Rep. Todd Akin (R-MO)**, approved in Committee, added a program element to the National Sea Grant College Program to minimize conflicts and delays in the production of offshore oil and gas, geothermal, wind, and thermal ocean power. **Rep. Phil Gingrey (R-GA)** offered a narrowly defeated amendment, seeking to incorporate curriculum to research the expedited production of offshore energy resources.
- **H.R. 6063** - National Aeronautics and Space Administration Authorization Act of 2008
Rep. Phil Gingrey (R-GA) offered two amendments intended to give the NASA Administrator the flexibility and discretion to purchase alternative fuels, derived from unconventional sources, such as coal-to-liquids, oil shale, and biofuels. The amendments sought to exempt NASA from a controversial section of the Energy Independence and Security Act of 2007 prohibiting federal agencies from purchasing unconventional fuel sources, if those sources produce more emissions than their conventional counterparts. Both amendments, supported by S&T Republicans, were ruled to be non-germane.

Making Coal a Cleaner, More Efficient Source of Energy

Coal is the most abundant, lowest-priced fossil fuel in the United States. It is also an abundant natural resource for much of the world, and will remain a major source of energy in the U.S. In 2007, the U.S. consumed 1.1 billion tons of coal, which is expected to grow to an estimated 1.5 billion tons by 2030, according to DOE's Energy Information Administration. Many Republicans on the Committee believe that clean coal technologies will play an important role in helping America achieve energy independence, and have offered numerous amendments to legislation supporting the development of these technologies.

- **H.R. 547** – The Advanced Fuels Infrastructure Research and Development Act
Republicans offered a Motion to Recommit (MTR), which would have added language to include Ultra Low Sulfur Diesel derived from coal-to-liquid technologies to the bill, in order to lessen dependence on foreign sources of petroleum. The MTR failed by a narrow vote of 200-207.
- **H.R. 363** – Sowing the Seeds through Science and Engineering Research Act
Republicans offered a successful MTR, which prioritizes grants to expand domestic energy production through coal-to-liquids technology and advanced nuclear reprocessing. The MTR passed by a vote of 264-154; the bill passed by a vote of 397-20.

- **H.R. 1933** – Department of Energy Carbon Capture and Storage Act of 2007
Rep. Michael McCaul (R-TX) offered an amendment that would add coal-to-liquid refineries to the list of facilities from which CO² could be used for capture demonstration. The amendment was defeated in Committee.
- **H.R. 2773** – Biofuels Research and Development Enhancement Act
Ranking Member Hall offered an amendment to create a research program on blending biofuels with coal-to-liquids. The amendment was defeated in Committee.

Promoting US Leadership in Space

Maintaining a Robust Manned Spaceflight Program at NASA

H.R. 6063, the NASA Reauthorization Act of 2008 authorizes \$20.21 billion in funding for NASA in FY09, which includes \$1 billion in additional funding to accelerate development of the Orion Crew Exploration Vehicle (CEV) and Ares I Crew Launch Vehicle (CLV). The Constellation system, which includes development of both the CEV and CLV, is a follow on to our aging Space Shuttle, and will provide our country with a modern, more robust, and safer manned spaceflight capability that will enable U.S. astronauts to fly beyond Low Earth orbit, an ability NASA has not had since the retirement of Apollo over 30 years ago. H.R. 6063 passed the House June 18, 2008 by a vote of 409-15.

Space and Aeronautics Subcommittee **Ranking Member Tom Feeney** has maintained his strong support for the President's Vision for Space Exploration. H.R. 6063 gives NASA clear direction and priorities, and authorizes increased funding to accomplish the goals, including:

- Directs NASA to fly two contingency flights to the space station and an additional mission to deliver the Alpha Magnetic Spectrometer;
- Authorizes an additional \$1 billion to accelerate the development of the Orion and Ares launch vehicles;
- Meets international commitments to the International Space Station, and takes steps to ensure its research viability through 2020;
- Doubles the funding for aeronautics research to keep the U.S. the world leader; and
- Maintains NASA's robust research in Earth Science, Planetary Science, Astrophysics and Heliophysics.



Utilizing Research Capabilities of the International Space Station and Reducing the "Gap"

The ISS is possibly the most complex and expensive international scientific and technological endeavor ever undertaken. Construction of the ISS has faced many challenges. In addition to schedule delays of its own, the ISS was severely impacted by the loss of the Shuttle Columbia and its crew (2003). Further, the retirement of the Shuttle, scheduled for 2010, will leave the U.S. fully reliant on Russia (crew and cargo) and our European allies (cargo only) for five years to provide routine transportation and emergency crew return from the station.

In an effort to minimize this impending gap between the retirement of the Shuttle and completion of the Constellation system, Republicans have pushed for more money for NASA in order to accelerate development of the new vehicles. The latest NASA reauthorization included an additional \$1 billion for this purpose.

Improving Safety, Efficiency of the U.S. Air Transportation System

The Committee cleared legislation reauthorizing existing programs within the FAA and establishing several new research initiatives aimed at improving the safety, capacity and efficiency of the U.S. air transportation system in order to meet expected air traffic demands of the future.

Ensuring Continuity during Transition of Weather Satellites

The Committee has continued its rigorous oversight over the development of the next-generation Geostationary Operational Environmental Satellite, R series (GOES-R) and the National Polar-orbiting Operational

Environmental Satellite System (NPOESS). These next generation satellites are in the development stages, in a joint endeavor between the National Oceanic and Atmospheric Administration (NOAA), the National Aeronautics and Space Administration (NASA) and the Department of Defense (DoD). The Science Committee began closely monitoring these programs under Republican leadership in order to assure that these important satellites are launched on time, and can continue to provide storm tracking images to the National Weather Service and the U.S. Air Force.

Making America More Competitive

Making Innovation a Priority

In August 2007, the President signed into law the America COMPETES Act, which passed the House with bipartisan support. This legislation, largely based on the American Competitiveness Initiative (ACI), is aimed at improving America's competitive edge through science, technology, engineering and math (STEM) education, research, and innovation. Investments in these areas will ensure that America remains the world leader in competitiveness and innovation.



Further, small and medium-sized manufacturers depend on an innovative environment in order to continue developing and adopting advanced technologies. The America COMPETES Act supports small and medium-sized manufacturers by re-authorizing the highly successful Manufacturing Extension Partnership program (MEP) and authorizing the Technology Innovation Program (TIP). These programs help businesses improve manufacturing processes, reduce waste, and train workers to use new equipment.

Improving K-12 STEM Education

Research and Science Education Ranking Member Vernon Ehlers made it a priority to strengthen our system of education at all levels to incorporate support for STEM teachers and students. The Subcommittee held numerous hearings exploring ways to improve and better coordinate STEM education, from improving the laboratory experience to improving teacher preparation.

Protecting and Advancing American Jobs and Industry

The Technology and Innovation Subcommittee held numerous hearings exploring the topic of offshoring and heard from a variety of witnesses on what America can do to keep high-paying, competitive jobs in the U.S.

Protecting the American People

Making the U.S. Borders More Secure

H.R. 3916, a bill introduced by **Ranking Member Hall**, passed out of Committee with bipartisan support, focusing on three pivotal technologies that could substantially help law enforcement agents improve the security of our nation's borders: unmanned aerial vehicles, tunnel detection, and anti-counterfeit technology.

At Committee, **Rep. Michael McCaul (R-TX)** amended the bill, creating a study to research the benefits and constraints of implementing a mobile biometric pilot program for the Border Patrol. The use of biometric technologies has the potential to significantly improve the operations of the Border Patrol. **Rep. Paul Broun (R-GA)** also hosted a congressional forum on border security in Augusta, Georgia. The discussion included a panel of government, industry, and academic experts who discussed the range of security threats at our nation's borders and how science and technology can be a part of a strong border security strategy.

It is estimated that there are over 12 million illegal aliens currently residing in the United States, with thousands more crossing the border illegally each day. S&T Republicans have been at the forefront of efforts to promote technologies to help agents in the field secure our vulnerable borders from drug traffickers, terrorists, and those who attempt to enter the country illegally.

Supporting Firefighters

On April 3, 2008 the House unanimously passed important Science Committee legislation, authorizing funding for the U.S. Fire Administration (USFA) and supporting training and educational programs for many of our nation's firefighters. Technology and Innovation Subcommittee **Ranking Member Phil Gingrey (R-GA)** was the lead Republican sponsor of H.R. 4847, which reauthorizes USFA's activities in training, fire education and awareness, data collection, research, and standards development and promotion.



Protecting Airline Passengers

On April 24, 2008 the Subcommittee on Technology and Innovation held a hearing to review the aviation security-related research, development, testing, and evaluation activities of the Department of Homeland Security Science and Technology Directorate (DHS S&T), and to explore how these support the Transportation Security Administration (TSA), the aviation industry, and passengers.

Promoting Interoperable Health Information Technology

As a Physician, **Rep. Phil Gingrey** has taken the lead on health information technology. On October 25, 2007 the Committee passed legislation intended to improve technology in the healthcare system by creating a national, interoperable health IT system to maintain patient healthcare records. Gingrey offered an amendment that would have removed what Republicans saw as an inappropriate role for NIST and NSF; however, the amendment failed on a party-line vote.

Improving Bridge Safety

On September 19, 2007 the Committee on Science and Technology held a hearing to examine research and development activities to improve the safety of the nation's bridges. The hearing explored the current state of bridge-related research, including government and academic research into materials, design elements, and testing and inspection technologies.

Ensuring Proper Oversight

Discouraging the Politicization of Science

Investigations and Oversight Ranking Member Jim Sensenbrenner has continuously monitored efforts to exploit science for political gain. Throughout the year, Rep. Sensenbrenner and I&O Members were persistent in seeing that oversight was conducted appropriately.

Strengthening our Nation's Radiation Labs

The Investigations and Oversight Subcommittee has highlighted the critical need to strengthen the nation's radiological laboratory capacity in order to promote increased readiness to respond to a radiological event.

Republican Legislative Accomplishments

H.R. 1716 - Green Energy Education Act of 2007

- Legislation introduced by **Rep. Michael McCaul** that authorizes higher education curriculum development and graduate training in advanced energy and green building technologies. The bill passed by a vote of 416-0. 6/6/2007.

H.R. 632 – H-Prize Act of 2007.

- Legislation that was originally introduced in the 109th Congress by **Rep. Bob Inglis**, this bill establishes a monetary prize incentive for breakthrough technologies supporting the development of a hydrogen fuel economy. The bill passed in the 110th Congress by a vote of 408-8. 6/6/2007.

H.R. 2850 – Green Chemistry Research and Development Act

- Legislation introduced by **Rep. Phil Gingrey** that strengthens federal efforts to find safer alternatives to today's chemical products. The bill passed by voice vote. 9/4/2007.

H.R. 3776 – Energy Storage Technology Advancement Act of 2007

- Legislation that includes language from a bill introduced by **Rep. Ralph Hall** that establishes a program at DOE to develop energy storage devices for stationary and vehicular applications. The bill passed by voice vote. 10/22/07

H.R.85 - Energy Technology Transfer Act

- Legislation introduced by **Rep. Judy Biggert** that provides for the establishment of centers to encourage demonstration and commercial application of advanced energy methods and technologies. This bill passed the House by a vote of 395 – 1. 3/12/08. It was included in Public Law 110-229.

H.R.1657 - To establish a Science and Technology Scholarship Program to award scholarships to recruit and prepare students for careers in the National Weather Service and in National Oceanic and Atmospheric Administration marine research, atmospheric research, and satellite programs

- Legislation introduced by **Rep. Dana Rohrabacher** that passed the House by a vote of 360 – 16. 9/17/07

H.R.1716 - Green Energy Education Act of 2007

- Legislation introduced by **Rep. Michael McCaul** that authorizes DOE to partner with NSF to help universities train the next generation of engineers and architects to develop energy efficient technologies for buildings. H.R. 1716 unanimously passed the House by a vote of 416 – 0. 6/6/2007

H.R.1834 - To authorize the national ocean exploration program and the national undersea research program within the National Oceanic and Atmospheric Administration

- Legislation introduced by **Rep. Jim Saxton** that passed the House by a vote of 352 – 49. 2/14/2008.

H.R.2850 - Green Chemistry Research and Development Act of 2007

- Legislation introduced by **Rep. Phil Gingrey** that establishes a Green Chemistry Research and Development Program to promote safe and efficient manufacturing processes to reduce the generation of hazardous substances. The bill passed the House by voice vote. 9/4/2007.

H.R.2339 - Produced Water Utilization Act of 2007

- Legislation introduced by **Rep. Ralph Hall** that establishes a research, development, and demonstration program to advance the beneficial reuse of water produced in connection with oil and gas extraction. The bill passed the House by voice vote. 7/30/2008.

Select GOP Amendments and MTRs

H.R. 363 – Sowing the Seeds through Science and Engineering Research Act

- **Republicans** offered a successful Motion to Recommit, prioritizing grants to expand domestic energy production through coal-to-liquids technology and advanced nuclear reprocessing. The MTR passed by a vote of 264-154.. 4/24/2007.

H.R. 362 –10,000 Teachers, 10 Million Minds Science and Math Scholarship Act

- **Republicans** offered a successful Motion to Recommit, adding language specifying that the bill cannot limit the authority of State governments or local school boards in determining curricula. The MTR passed by a vote of 408-4; the bill passed by a vote of 389-22. 4/24/2007.

H.R. 2304 – The Advanced Geothermal Energy Research and Development Act

- **Republicans** successfully amended this legislation to include a demonstration program, the goal of which is to prove the feasibility of co-producing geothermal power from oil and gas fields. In addition to gas, these resources hold tens of thousands of megawatts of potential energy in hot geothermal fluids and hydraulic pressure. The Energy Independence and Security Act of 2007 included the geothermal provisions, which became part of Public Law 110-140.

H.R. 2272 – 21st Century Competitiveness Act [America COMPETES Act]

- **Republicans** offered a Motion to Recommit the Conference Report with instructions, which was narrowly defeated by a vote of 199-227. The Motion would have instructed House conferees to insist on the lower overall authorization level set forth in the House legislation, and to prioritize early career grants to researchers for the expansion of domestic energy production and use through coal-to-liquids technology and advanced nuclear reprocessing. The Conference Report passed the House by a vote of 367-57 and became **Public Law No: 110-69** 8/9/2007.

H.R. 547 – The Advanced Fuels Infrastructure Research and Development Act

- **Republicans** offered a Motion to Recommit, which was narrowly defeated by a vote of 200-207. The motion would have added language to include Ultra Low Sulfur Diesel derived from coal-to-liquid technologies to the bill, in order to lessen dependence on foreign sources of petroleum. 2/8/2007.