

HR 2460

Comprehensive Energy Research and Technology Act of 2001

Congress: 107 (2001–2003, Ended)

Chamber: House

Policy Area: Energy

Introduced: Jul 11, 2001

Current Status: Placed on the Union Calendar, Calendar No. 106.

Latest Action: Placed on the Union Calendar, Calendar No. 106. (Jul 31, 2001)

Official Text: <https://www.congress.gov/bill/107th-congress/house-bill/2460>

Sponsor

Name: Rep. Boehlert, Sherwood [R-NY-23]

Party: Republican • State: NY • Chamber: House

Cosponsors (9 total)

Cosponsor	Party / State	Role	Date Joined
Rep. Baca, Joe [D-CA-42]	D · CA		Jul 31, 2001
Rep. Biggert, Judy [R-IL-13]	R · IL		Jul 31, 2001
Rep. Costello, Jerry F. [D-IL-12]	D · IL		Jul 31, 2001
Rep. Ehlers, Vernon J. [R-MI-3]	R · MI		Jul 31, 2001
Rep. Hart, Melissa A. [R-PA-4]	R · PA		Jul 31, 2001
Rep. Matheson, Jim [D-UT-2]	D · UT		Jul 31, 2001
Rep. Smith, Nick [R-MI-7]	R · MI		Jul 31, 2001
Rep. Udall, Mark [D-CO-2]	D · CO		Jul 31, 2001
Rep. Woolsey, Lynn C. [D-CA-6]	D · CA		Jul 31, 2001

Committee Activity

Committee	Chamber	Activity	Date
Science, Space, and Technology Committee	House	Discharged from	Jul 17, 2001

Subjects & Policy Tags

Policy Area:

Energy

Related Bills

Bill	Relationship	Last Action
107 HR 4	Related bill	Oct 10, 2002: NOTIFICATION OF INTENT TO OFFER MOTIONS - Mr. Waxman notified the House of his intent to offer motions to instruct conferees on the bill H.R. 4.

Comprehensive Energy Research and Technology Act of 2001 - Enumerates goals for energy research, development, demonstration and commercial application programs targeting the following areas: (1) energy conservation and efficiency with respect to the building technology, state, and community sector, the industry sector, power technologies, and the transportation sector; (2) renewable energy targeting hydrogen research, bioenergy, geothermal technology development, hydropower, concentrating solar power, photovoltaic energy systems, solar building technology research, wind energy systems, electric energy systems and storage, international renewable energy and renewable energy production incentive programs, and renewable program support; (3) nuclear energy; (4) fossil energy; and (5) science.

(Sec. 4) Instructs the Secretary of Energy (the Secretary) to perform an assessment that establishes measurable cost and performance-based goals for specified five-year periods for programs authorized by this Act.

(Sec. 7) Expresses the sense of Congress that the funding of the various programs authorized by titles I through IV of this Act should remain in the same proportion to each other as provided in this Act, regardless of the total amount of funding made available for them.

Title I: Energy Conservation and Energy Efficiency - Subtitle A: Alternative Fuel Vehicles - Alternative Fuel Vehicle Acceleration Act of 2001 - Directs the Secretary to establish an alternative fuel vehicle competitive grant pilot program for State and local governments and metropolitan transportation authorities. Defines alternative fuel vehicle as a motor vehicle powered in whole or in part by electricity, liquefied natural gas, compressed natural gas, liquefied petroleum gas, hydrogen, methanol or ethanol, or propane. Authorizes appropriations.

Subtitle B: Distributed Power Hybrid Energy Systems - Directs the Secretary to develop and transmit to Congress a strategy for distributed power hybrid systems which incorporates a research, demonstration, and commercial application program to ensure reliability efficiency, and environmental integrity of distributed energy resources, as well as technology gaps and barriers that hamper the use of such systems.

(Sec. 124) Directs the Secretary to: (1) 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; (2) award competitive, merit-based grants to consortia of private sector entities for micro-cogeneration energy technology development; and (3) work with standards development organizations toward the development of voluntary consensus standards for distributed energy systems.

Subtitle C: Secondary Electric Vehicle Battery Use - Directs the Secretary to establish and conduct a research, development, and demonstration program for the secondary use of batteries where their original use was in transportation applications. Authorizes appropriations.

Subtitle D: Green School Buses - Clean Green School Bus Act of 2001- Directs the Secretary to establish: (1) a pilot program to award demonstration and commercial application grants for alternative fuel school buses and ultra-low sulfur diesel school buses; and (2) a program of cooperative agreements with private sector fuel cell bus developers for development and demonstration of fuel cell-powered school buses, and with local governmental units for use of natural-gas powered school buses. Authorizes appropriations.

Subtitle E: Next Generation Lighting Initiative - Next Generation Lighting Initiative Act - Authorizes the Secretary to establish the Next Generation Lighting Initiative, a research and development program to promote advanced lighting

technologies (including white light emitting diodes). Directs the Secretary to study strategies for development and commercial application of such technologies.

Subtitle F: Department of Energy Authorization of Appropriations - Authorizes appropriations for the following Department of Energy programs: (1) alternative fuel vehicles; (2) micro-cogeneration energy technology; (3) the green school bus program; (4) distributed power hybrid energy systems; (5) secondary electric vehicle battery use; (6) the Next Generation Lighting Initiative; and (7) energy conservation operation and maintenance (including building technology, the state and community sector, the industry and transportation sectors, and power technologies).

(Sec. 161) Bars the use of funds earmarked for such programs for: (1) residential and commercial building energy codes; (2) lighting and appliance standards; (3) the Weatherization Assistance Program; (4) the State Energy Program; and (5) the Federal Energy Management Program.

Subtitle G: Environmental Protection Agency Office of Air and Radiation Authorization of Appropriations - Environmental Protection Agency Office of Air and Radiation Authorization Act of 2001 - Authorizes appropriations to the Administrator of the Environmental Protection Agency for the Office of Air and Radiation, with specified limitations upon their use.

(Sec. 175) Requires the Administrator to limit funding for scientific or energy demonstration or commercial application of Office energy technology programs, projects, or activities to those technologies or processes that can be reasonably expected to yield new, measurable benefits to their cost, efficiency, or performance.

Subtitle H: National Building Performance Initiative - Requires the Director of the Office of Science and Technology Policy to establish: (1) an Interagency Group to develop and implement a National Building Performance Initiative addressing energy conservation, research, and development, and transmit to Congress a multiyear implementation plan describing the Federal role in reducing use and operations costs of buildings by 30 percent by 2020; and (2) a National Building Performance Advisory Committee.

Title II: Renewable Energy - Subtitle A: Renewable Hydrogen - Robert S. Walker and George E. Brown, Jr. Hydrogen Energy Act of 2001 - Amends the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 to revise its purposes to include the development of a hydrogen production methodology that minimizes adverse environmental impacts, including efficient and cost-effective production from renewable resources.

(Sec. 205) Modifies the hydrogen research and development program to instruct the Secretary to survey private sector and public sector hydrogen research and development activities worldwide, taking steps to ensure that research and development activities under this section do not duplicate available research and development results.

(Sec. 206) Directs the Secretary to launch a fuel cell bus demonstration program to address hydrogen production, storage, and use in transit bus application.

(Sec. 207) Modifies the technology transfer program to include application in foreign countries to increase the global market for the technologies and foster global economic development without harmful environmental effects.

(Sec. 209) Abolishes the Hydrogen Technical Advisory Panel as presently constituted. Directs the Secretary to enter into arrangements with the National Academies of Sciences and Engineering to establish an advisory committee.

(Sec. 210) Authorizes appropriations through FY 2006.

(Sec. 211) Amends the Hydrogen Future Act of 1996 to repeal the program regarding the integration of fuel cells with hydrogen production systems.

Subtitle B: Bioenergy - Bioenergy Act of 2001 - Authorizes appropriations through FY 2006 for: (1) bioenergy research and development programs; (2) biofuels energy systems; and (3) integrated bioenergy research and development. Declares that: (1) such activities shall be coordinated with ongoing related Federal programs, including the Plant Genome Program of the National Science Foundation; and (2) funds may be used to assist in the planning, design, and implementation of projects to convert rice straw and barley grain into biopower or biofuels.

Subtitle C: Transmission Infrastructure Systems - Directs the Secretary to: (1) implement a comprehensive research, development, and commercial application program to ensure the reliability and environmental integrity of electrical transmission systems; and (2) transmit to Congress a five-year program plan guide. Requires program components to include: (1) advanced energy technologies and systems; (2) high capacity superconducting transmission lines and generators; (3) advanced grid reliability and efficiency technologies development; and (4) technologies contributing to significant load reductions, advanced metering, load management and control technologies, and technology transfer and education.

Subtitle D: Department of Energy Authorization of Appropriations - Authorizes appropriations through FY 2004 for Renewable Energy operation and maintenance (including wave powered electric generation). Bars the use of such appropriations for either Departmental Energy Management Program, or Renewable Indian Energy Resources.

Title III: Nuclear Energy Department of Energy University Nuclear Science and Engineering Act - Subtitle A: University Nuclear Science and Engineering - Directs the Secretary to: (1) support a program to maintain the nation's human resource investment and infrastructure in nuclear sciences and engineering; and (2) provide for designated university research and training reactor infrastructure maintenance and research activities.

(Sec. 304) Authorizes appropriations through 2006 for: (1) graduate and undergraduate fellowships; (2) junior faculty research initiation grant programs; (3) nuclear engineering and education research programs; (4) communication and outreach related to nuclear science and engineering; (5) refueling research reactors and instrumentation upgrades; (6) re-licensing assistance; (7) a university reactor research and training award program; and (8) university-DOE laboratory interactions.

Subtitle B: Advanced Fuel Recycling Technology Research and Development Program - Directs the Secretary to conduct an advanced fuel recycling technology research and development program to promote the availability of proliferation-resistant fuel recycling technologies as an alternative to aqueous reprocessing. Authorizes appropriations through FY 2004.

Subtitle C: Department of Energy Authorization of Appropriations - Directs the Secretary, through the Office of Nuclear, Energy, Science and Technology, to conduct: (1) a Nuclear Energy Research Initiative for a competitive nuclear energy research grants program; (2) a Nuclear Energy Plant Optimization research and development program (in conjunction with industry); and (3) a study of Generation IV nuclear energy systems. Authorizes appropriations through FY 2004.

(Sec. 344) Authorizes appropriations through FY 2004 for nuclear energy operation and maintenance, including Advanced Radioisotope Power Systems, Test Reactor Landlord, and Program Direction.

Bars the use of funds authorized for these programs for: (1) Nuclear Energy Isotope Support and Production; (2) Argonne

National Laboratory-West Operations; (3) Fast Flux Test Facility; or (4) Nuclear Facilities Management.

Title IV: Fossil Energy - Subtitle A: Clean Coal - National Electricity and Environmental Technology Research and Development Act - Directs the Secretary to implement research and development programs pertaining to the commercial application of clean coal technologies.

(Sec. 405) Authorizes appropriations through FY 2011 for the Clean Coal Power Initiative and through FY 2004 for other coal and related technologies programs.

(Sec. 407) Directs the Secretary to award competitive, merit-based grants for the establishment of Centers of Excellence for Energy Systems of the Future to universities with a proven record of conducting clean coal technology research and development.

Subtitle B: Oil and Gas - Directs the Secretary to conduct a research, development and commercial application program on petroleum-oil technology and natural gas technologies.

Subtitle C: Ultra-Deepwater and Unconventional Drilling - Natural Gas and Other Petroleum Research, Development, and Demonstration Act of 2001 - Directs the Secretary to conduct a research, development and commercial application program on ultra-deepwater natural gas and petroleum exploration and production technologies in areas currently available for Outer Continental Shelf leasing.

(Sec. 444) Declares that, when appropriate, the National Energy Technology Laboratory and the United States Geological Survey shall implement long-term research programs into new natural gas and other petroleum exploration and production technologies, including environmental mitigation technologies for production from unconventional and ultra-deepwater resources, including methane hydrates. Requires such Laboratory to conduct a program of research, development, and demonstration of new technologies for the reduction of greenhouse gas emissions from unconventional and ultra-deepwater natural gas or other petroleum exploration and production activities, including sub-sea floor carbon sequestration technologies.

(Sec. 445) Directs the Secretary to establish an Advisory Committee (whose members are not Federal employees or contractors) to advise on the creation of a Research Organization and upon implementation of this Act.

(Sec. 446) Prescribes a procedure for selection of an entity to create the Research Organization. Requires the Research Organization to award competitive grants to research institutions, institutions of higher education, companies, and consortia of them conducting research, development, and demonstration of: (1) unconventional and ultra-deepwater natural gas or other petroleum exploration; and (2) ultra-deepwater architecture.

(Sec. 450) Establishes the Ultra-Deepwater and Unconventional Gas Research Fund (funded by loans from the Treasury and Federal oil and gas income) to pay for such grants.

Subtitle D: Fuel Cells - Directs the Secretary to: (1) conduct a fuel cell research, development, demonstration, and commercial application program; and (2) establish a demonstration program of fuel cell technologies (including fuel cell proton exchange membrane technology) for commercial, residential, and transportation applications. Authorizes appropriations through FY 2004.

Subtitle E: Department of Energy Authorization of Appropriations - Authorizes appropriations through FY 2004 for operation and maintenance for research, development and commercial application programs on: (1) petroleum-oil technology and natural gas technologies; (2) fuel cells technologies; and (3) Fossil Energy Research and Development

Headquarters Program Direction, Field Program Direction, Plant and Capital Equipment, Cooperative Research and Development, Import/Export Authorization, and Advanced Metallurgical Processes.

(Sec. 481) Prohibits the use of such appropriations for: (1) Gas Hydrates; (2) Fossil Energy Environmental Restoration; or (3) research, development, demonstration, and commercial application pertaining to coal and clean coal technologies.

Title V: Science - Subtitle A: Fusion Energy Sciences - Fusion Energy Sciences Act of 2001 - Directs the Secretary to develop a plan for: (1) U.S. construction of a magnetic fusion burning plasma experiment; and (2) the Fusion Energy Sciences Program to enable such burning plasma experiments. Authorizes plan development for U.S. participation in an international burning plasma experiment if the Secretary finds that its construction is highly likely, and that Federal participation is cost effective relative to the domestic experiment.

(Sec. 505) Authorizes appropriations through FY 2003 for plan development and review of the plans under the Fusion Energy Sciences Program, but not for their implementation.

Subtitle B: Spallation Neutron Source - Authorizes appropriations through 2006 for the Spallation Neutron Source (at Oak Ridge National Laboratory, Tennessee). Authorizes appropriations through FY 2006.

Subtitle C: Facilities, Infrastructure, and User Facilities - Directs the Secretary to: (1) develop and implement a least-cost nonmilitary energy laboratory facility and infrastructure strategy; and (2) prepare and transmit to Congress a comprehensive ten-year facility maintenance, construction, and implementation plan at each nonmilitary energy laboratory.

Subtitle D: Advisory Panel on Office of Science - Requires the Director of the Office of Science and Technology Policy to establish an Advisory Panel on the Office of Science to: (1) address concerns about the status and future of scientific research supported by the Office; (2) examine alternatives to the current organizational structure of the Office within the Department, taking into consideration existing structures for the support of scientific research in other Federal agencies and the private sector; and (3) suggest actions to strengthen the scientific research supported by the Office that might be taken jointly by the Department and Congress.

Subtitle E: Department of Energy Authorization of Appropriations - Authorizes appropriations through FY 2002 for the Office of Science (including Facilities, Infrastructure, and User Facilities, High Energy Physics, Nuclear Physics, Biological and Environmental Research, Basic Energy Sciences (except for the Spallation Neutron Source), Advanced Scientific Computing Research, Energy Research Analysis, Multiprogram Energy Laboratories-Facilities Support, Facilities and Infrastructure, Safeguards and Security, and Program Direction). Allocates specified sums for research regarding precious metal catalysis, (excluding platinum, palladium, and rhodium).

(Sec. 581) Prohibits the use of such funds for construction at any national security laboratory or at any nuclear weapons production facility .

Title VI: Miscellaneous - Subtitle A: General Provisions for the Department of Energy - Sets forth general operating parameters for the authorized activities and agreements under this Act, including management and operating contracts, and cost sharing for research and development, demonstration and commercial application projects.

(Sec. 604) Restricts: (1) the Secretary's funding power to technologies or processes under this Act that can be reasonably expected to yield new, measurable benefits to cost, efficiency, or performance; and (2) the Secretary's reprogramming authority to compliance with certain reporting requirements and appropriations ceiling.

Subtitle B: Other Miscellaneous Provisions - Requires the Secretary to provide notice to the appropriate congressional committees as a prerequisite to reorganization of any environmental research or development, scientific or energy research, development, or demonstration, or commercial application of energy technology program, project, or activity of the Department.

(Sec. 612) Specifies limits upon general plant and construction projects, including the Secretary's construction design authority.

(Sec. 615) Mandates reports to the appropriate congressional committees following review of the National Energy Policy Development Group Report on: (1) energy efficiency renewable energy, and alternative energy research and development; and (2) using the Nation's energy resources more efficiently.

(Sec. 616) Directs the Secretary to: (1) enter into arrangements with the National Academies of Sciences and Engineering to ensure periodic five-year assessments of the programs authorized by this Act, as well as their measurable cost and performance-based goals, and the progress on meeting such goals; and (2) report the results of such reviews and assessments to congressional committees.

Actions Timeline

- **Jul 31, 2001:** Reported (Amended) by the Committee on Science. H. Rept. 107-177.
- **Jul 31, 2001:** Reported (Amended) by the Committee on Science. H. Rept. 107-177.
- **Jul 31, 2001:** Placed on the Union Calendar, Calendar No. 106.
- **Jul 18, 2001:** Committee Consideration and Mark-up Session Held.
- **Jul 18, 2001:** Ordered to be Reported (Amended) by Voice Vote.
- **Jul 17, 2001:** Subcommittee on Energy Discharged.
- **Jul 11, 2001:** Introduced in House
- **Jul 11, 2001:** Introduced in House
- **Jul 11, 2001:** Referred to the House Committee on Science.
- **Jul 11, 2001:** Referred to the Subcommittee on Energy.