

## Side by Side

### Comparison of Senate and House proposals for a Comprehensive National Energy Policy

*September 3, 2003*

#### OIL AND GAS

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>STRATEGIC PETROLEUM RESERVE</b>	<p>Permanently authorizes the Strategic Petroleum Reserve. (Sec. 101)</p> <p>No similar provision.</p>	<p>Similar to S. 14, but doesn't reauthorize interagency working group. (Sec. 12103)</p> <p>Directs President to fill the SPR as soon as practicable. Expands the SPR to 1 billion barrels. (Sec. 12101-12102)</p>	<p>Permanently authorizes the SPR. (Sec. 601)</p> <p>Directs that the SPR be filled to its current capacity, requires a report on infrastructure bottlenecks that might impede drawdowns from the SPR, and requires recommendations for increasing the capacity of the SPR. (Sec. 609)</p>
<b>PETROLEUM AND NATURAL GAS STORAGE</b>	<p>Requires DOE review minimum operating storage levels across the nation and report to Congress on storage outlook and the minimum inventories the U.S. economy can function on without interruption or rationing. (Sec. 102)</p>	<p>No similar provision.</p>	
<b>ROYALTY-IN- KIND</b>	<p>Authorizes a 10-year program, granting the Secretary authority to use revenues generated from RIK sales to pay for business-related costs of selling the RIK production. Requires lessee to place production in marketable condition</p> <p>Prevents RIK revenues from being used for Federal personnel, travel, or administrative costs, unless related to the SPR.</p> <p>Requires report on development of an automated RIK system.</p> <p>Report on business plans and annual reports on program required.</p> <p>No similar provision. (Sec. 103)</p>	<p>Similar to S. 14, but provides for permanent authorization, and defines "in marketable condition."</p> <p>Funds may be used for administrative costs related to the SPR, and are not otherwise limited.</p> <p>Similar to S. 14.</p> <p>No similar provision.</p> <p>Allows preferences for small refineries and prorating. (Sec. 30201)</p>	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>MARGINAL PROPERTY PRODUCTION INCENTIVES</b>	Allows the Secretary of the Interior to provide incentives to encourage lessees to extend the life of wells that may be abandoned due to economic factors. Establishes specific commodity triggers during periods of low prices until the Secretary promulgates a new marginal well royalty program by rule. (Sec. 104)	Similar to S. 14, but requires the Secretary to consider regional differences in wellhead prices and national security when promulgating rules prescribing royalty relief. Also provides a definition of independent producer. (Sec. 30205)	
<b>INVENTORY OF OCS RESOURCES</b>	Requires the Secretary to survey all OCS resources currently in existing production areas and those under moratoria to develop an inventory of potential oil and gas resources of the U.S. Authorizes Secretary to collect data from existing production from Canada and Mexico, as well as use 3D seismic technology, to develop the most accurate data possible of domestic oil and gas resources. Prohibits the use of drilling as a means of collecting geologic data. (Sec. 105)	No similar provision.	
<b>ROYALTY RELIEF FOR DEEP WATER PRODUCTION</b>	Provides royalty relief to encourage the development of oil and gas resources located in water depth between 400-1,600 meters in the Western and Central Gulf of Mexico. (Sec. 106)	Similar to S. 14, but includes Alaska frontier areas and stipulates that lease sales must occur before July 1, 2007. Provision is an amendment to the OCS Lands Act, rather than a stand-alone provision, as it is in S. 14. (Sec. 30204(b))	
<b>ALASKA OFFSHORE ROYALTY SUSPENSION</b>	Provides Secretary of the Interior authority under the OCS Lands Act to give royalty relief to existing, non-producing leases for production in Alaska frontier regions – the same level authority currently provided in the Gulf of Mexico. (Sec. 107)	Same as S. 14 (Sec. 30204(c))	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ORPHANED, ABANDONED OR IDLED WELLS</b>	Provides a five-year, \$100 million program to remediate, reclaim, or close orphaned, abandoned or idled wells on federal lands. Establishes a technical assistance program to provide assistance to states in dealing with orphaned or abandoned wells on state or private land, and authorizes \$5 million for the program. (Sec. 108)	Authorizes the Secretary to require, as a condition of a new lease, the reclamation of all orphan wells on the land leased. If such a requirement is made, the Secretary shall provide credits against royalties owed equal to the cost of reclaiming the wells. The Secretary may also require the reclamation of orphan wells on unleased land or currently leased land for the reclamation of which the lessee is not responsible. If such a requirement is made, the Secretary shall provide royalty credits equal to 115 percent of the cost of reclaiming the wells. Sets forth criteria for reporting and application of royalty credits, and limits liability for persons reclaiming orphan wells. (Sec. 30210)	Requires the Secretary of the Interior, in cooperation with the Secretary of Agriculture and the States, to carry out a program to ensure the remediation and closure of orphaned, abandoned or idled oil and gas wells on lands administered by DOI or USFS. Authorizes \$5 million in each of fiscal years 2003-2005. (Sec. 604)  Requires the Secretary of Energy to establish a program to provide technical assistance to oil and gas-producing States to address the environmental problems caused by orphaned and abandoned oil and gas exploration and production sites. Authorizes \$5 million in each of fiscal years 2003-2005. (Sec. 605)
<b>INCENTIVES FOR NATURAL GAS PRODUCTION FROM DEEP WELLS IN THE SHALLOW WATERS OF THE GULF OF MEXICO</b>	Directs the Secretary of the Interior to publish a final rule providing royalty relief for shallow water, deep gas production on the Outer Continental Shelf.  Prohibits the Secretary from providing incentives if average annual NYMEX gas price exceeds \$5 per million Btu for one calendar year. (Sec. 109)	Prescribes royalty relief for various threshold levels of deep gas and ultra deep gas production. Program is limited to 5 years.  Same as S. 14.  (Sec. 30204(a))	
<b>ALTERNATE ENERGY- RELATED USES ON THE OUTER CONTINENTAL SHELF</b>	Grants Secretary of the Interior permitting and rights-of-way authority for traditional and non-traditional energy projects such as wind, wave, solar and staging facilities to support deep water drilling on the Outer Continental Shelf. Authorities do not apply within boundaries of the any national parks, wildlife areas or marine sanctuary or for oil and gas production related activities in moratoria areas. (Sec. 110)	Similar to S. 14, but does not specifically exclude moratoria areas, units of the National Park System, National Wildlife Refuge System, National Marine Sanctuary System, or National Monuments. Allows Secretary to issue grants or easements on a competitive or noncompetitive basis. (Sec. 30214)	

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<b>COASTAL IMPACT ASSISTANCE</b>	Provides impact assistance payments to states and political subdivisions in amounts up to the equivalent of 12.5 percent of qualified OCS revenues. Of the funds provided, 65 percent is allocated to the governor and 35 percent allocated to eligible political subdivisions for coastal impact assistance subject to a plan approved by Governor of the relevant state. Subject to appropriations. (Sec. 111)	No similar provision.	
<b>ROYALTY PAYMENTS UNDER OCS LAND ACT</b>	No similar provision.	Allows lessees owed compensation under the Oil Pollution Act of 1980 to withhold royalty payments due for production from a covered lease tract on the OCS, if the lessee makes a payment of 44 cents of every dollar withheld to Louisiana. Requires Treasury to publish a certificate once the total amount of royalty withheld is equal to the lessee's share of the total West Delta drainage claim. (Sec. 30220)	
<b>NATIONAL ENERGY RESOURCES DATABASE</b>	Requires Secretary of the Interior to develop the National Energy Data Preservation Program to archive geological, geophysical, and engineering data related to oil and gas development. (Sec. 112*)	Similar to S. 14, but does not allow funds to be used for technical assistance. (Sec. 30211)	Requires DOI, through USGS, to enter into appropriate agreements with States to collect, archive, and provide public access to oil and gas resource data. (Sec. 612)
<b>OIL AND GAS LEASE ACREAGE LIMITATION</b>	Prevents lands committed to a federally approved unit or cooperative plan or communitization agreement, or for which royalty was paid in the preceding year, from being changed against the State acreage limitation. (Sec. 113)	Same as S. 14. (Sec. 30209)	Alters the acreage cap for oil and gas leases on federal lands so that producing leases are not included in the existing Statewide acreage limitation. (Sec. 603)
<b>ASSESSMENT OF DEPENDENCE OF STATE OF HAWAII ON OIL</b>	Directs the Secretary of Energy to evaluate the potential economic impact of a disruption of crude oil supplies and the economic feasibility of increasing renewable energy and liquid natural gas in the state of Hawaii. (Sec. 114)	No similar provision.	Requires the DOE to conduct a study to assess the economic risk posed by the dependence of Hawaii on oil as its principal source of energy, and the feasibility of using renewables or LNG to supplement oil. Requires a report to Congress within 300 days. (Sec. 1702)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>NATURAL GAS SUPPLY SHORTAGE STUDY</b>	Directs DOE to report to Congress regarding natural gas supply and demand, including recommendations to strike a balance between the two. (Sec. 115*)		
<b>GREAT LAKES INFRASTRUCTURE STUDY</b>			Requires DOE to conduct a study of the location and extent of anticipated growth in natural gas and other transmission infrastructure proposed to be constructed across the Great Lakes and resulting environmental impacts. Requires NAS review. (Sec. 1706)
<b>OFFICE OF FEDERAL ENERGY PERMIT COORDINATION</b>	Authorizes the creation of the Office of Federal Energy Permit Coordination within the Executive Office of the President. Office will assist federal agencies in coordinating the permitting of energy projects on federal land and will be staffed with qualified and experienced staff from federal agencies and departments as needed. Office is charged with preparing an annual report to Congress, making recommendations on regulatory improvements needed to improve the federal permitting process. (Sec. 121)	Expresses sense of the Congress that the interagency task force on energy project streamlining, established by Executive Order 13212, should remain in existence until the President find that the needs for which it was created have been met. (Sec. 30216)	
<b>PILOT PROGRAM TO IMPROVE FEDERAL PERMIT COORDINATION</b>	Creates federal permit coordination demonstration project in six Western offices of BLM. Requires consulting federal agencies to deploy staff to work with BLM land managers on all environmental permits and land use planning documents to streamline federal operations. Each field office will prepare an annual report for submission to the President. (Sec. 122)	Expresses sense of Congress that the task force established by Executive Order 13212 should carry out a pilot project in the Northern Rocky Mountains and report to Congress in 3 years. (Sec. 30217)	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>FEDERAL ONSHORE OIL AND GAS LEASING AND PERMITTING</b>	<p>Authorizes \$60 million for the BLM in order to speed processing of permits and ensure timely compliance with the National Environmental Policy Act, as well as providing BLM with increased inspection and enforcement staff. (Sec. 123)</p> <p>No similar provision.</p> <p>No similar provision.</p>	<p>Similar to S. 14, but does not authorize funds. Requires Secretary to issue, for public comment, specific timeframes for actions on leases and applications. (Sec. 30207)</p> <p>Requires the Secretary of the Interior, in cooperation with the Secretary of Agriculture, to review Federal onshore oil and gas leasing and permitting practices and report to Congress on actions taken to improve the onshore oil and gas leasing program. (Sec. 30206)</p> <p>Directs the Secretaries of Agriculture and the Interior to enter into an MOU to coordinate, streamline, and expedite oil and gas leasing on public lands. The Secretaries must create a joint data retrieval system and a joint GIS mapping system. (Sec. 30208)</p>	<p>Authorizes \$60 million in each of fiscal years 2003 through 2006 to ensure adequate personnel at DOI, to expedite environmental reviews and action on leases for oil and gas production on public lands. (Sec. 602)</p>
<b>COORDINATION OF FEDERAL AGENCIES TO ESTABLISH PRIORITY ENERGY TRANSMISSION RIGHTS-OF-WAY</b>	<p>Requires the Secretaries of the Interior and Agriculture to designate utility corridors across federal lands in Western states that have already been identified and can be incorporated into land use and resource management plans within 24 months of enactment. (Sec. 126)</p> <p>Establishes DOE as the lead agency charged with coordinating the efforts of federal agencies through an MOU to enhance the federal permit process for transmission rights-of-ways outside of the designated federal utility corridors across the country. (Sec. 126)</p> <p>No similar provision.</p>	<p>Similar to S. 14, but requires broader agency consultation and completion of any environmental reviews needed to complete designation of utility corridors. Requires Secretaries to consider need for new transmission to improve reliability and relieve congestion and provides a definition of “corridor”. (Sec. 30901)</p> <p>Similar to S. 14, but coordination and consultation is limited. (Sec. 30903)</p> <p>Requires a report addressing the location of existing rights-of-way and de facto corridors and identifying opportunities for additional pipeline and transmission siting within those rights-of-way and corridors. (Sec. 30901)</p>	

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<b>ESTIMATES OF OIL AND GAS RESOURCES UNDERLYING ONSHORE FEDERAL LANDS</b>	<p>Requires the Secretary of Interior to expand inventory of onshore Federal lands required in the Energy Act of 2000 to include an evaluation of oil and gas resources and the specific regulatory impediments that restrict or delay the permitting, exploration and transportation of oil and gas on federal lands.</p> <p>Strikes language requiring inventory to be provided to Congress by Nov. 9, 2002.</p> <p>Requires progress reports in 2006 and 2010 (Sec. 124)</p>	<p>Similar to S. 14, but keeps language in existing law requiring a regular update of the inventory. (Sec. 30203)</p> <p>No similar provision.</p> <p>No similar provision.</p>	
<b>SPLIT-ESTATE LEASING AND DEVELOPMENT PRACTICES</b>	<p>Directs the Secretary of Interior to review the policies and management practices of federal subsurface oil and gas development and the effects on private owned surface lands. (Sec. 125)</p>	<p>No similar provision.</p>	
<b>COMBINED HYDROCARBON LEASING</b>	<p>No similar provision.</p>	<p>Authorizes the Secretary, on lands with tar sand and oil &amp; gas, to issue separate leases for exploration and development of the two resources. (Sec. 30219)</p>	
<b>DETERMINING FAIR MARKET VALUE OF LAND</b>	<p>No similar provision.</p>	<p>Sets forth manner for determining fair market value of land for rights-of-way, as required to be paid under FLPMA and MLA. Requires the Secretaries of Agriculture and the Interior to revise rental fee zone value schedules, and outlines criteria that will trigger future revisions of the schedules. (Sec. 30202)</p>	
<b>NATURAL GAS MARKET DATA TRANSPARENCY</b>	<p>No similar provision.</p>	<p>Requires FERC to issue rules authorizing creation of electronic information system for natural gas markets. Information that must be made publically available is limited to aggregate data and transaction-specific data that FERC already requires to be public. Sets forth civil penalties for violations. (Sec. 12402)</p>	

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<b>OIL AND GAS EXPLORATION AND PRODUCTION</b>	No similar provision.	Amends Federal Water Pollution Control Act to include definition of oil and gas exploration and production. (Sec. 12403)	
<b>HYDRAULIC FRACTURING</b>	No similar provision.	Amends Safe Water Drinking Act definition of underground injection (which is deemed harmful to drinking water) to exclude injections pursuant to hydraulic fracturing operations related to oil or gas production. (Sec. 12201)	Amends the SDWA to require EPA to study the effects of hydraulic fracturing on underground drinking water sources. Requires NAS to review the study and report to Congress with recommendations or modifications in study findings. Requires EPA to determine whether regulations on hydraulic fracturing are needed. (Sec. 610)  Authorizes \$100,000 to the State of Alabama to assist in implementation of its program under SDWA. (Sec. 611)
<b>UNPROVEN RESERVES PROGRAM</b>	No similar provision.	Establishes a 10-year, \$100 million demonstration program to extract oil and gas from unproven onshore reserves. Sets forth characteristics of reserves and lists types of technologies that may be included. Specifies that grant program shall be administered by a nonprofit consortium under the authority of the Secretary of Energy, and outlines authorities and limitations of the consortium. Requires Secretary to submit an annual plan and print it in the Federal Register. Outlines criteria for grant proposals, and stipulates that grants must be repaid. Establishes an advisory committee to advise the Secretary. (Sec. 12301-12312)	
<b>ACTIONS SIGNIFICANTLY AFFECTING ENERGY SUPPLY</b>	No similar provision.	Requires any person taking any action that could significantly harm energy supply to prepare a Statement of Energy Effects detailing the adverse effects and reasonable alternatives. Directs the Secretaries of Agriculture and the Interior to enter into an MOU to implement the regulation. (Sec. 30212)	



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<b>REIMBURSEMENT FOR NEPA COSTS</b>	No similar provision.	Amends the Mineral Leasing Act to provide for reimbursement to lessees, operators or lease applicants, through royalty credits, of costs related to NEPA compliance only if the Secretary lacks funding, the person paid the costs voluntarily, and adequate records are provided. (Sec. 30213)	
<b>CZMA APPEALS DEADLINES</b>	No similar provision.	Requires the Secretary to publish a notice when appeals of a consistency determination have been filed, to close the record of decision related to the appeal no later than 360 days after the initial notice, and to issue a decision within 90 days. (Sec. 30215)	
<b>ENERGY DEVELOPMENT FACILITATOR STUDY</b>	No similar provision.	Requires a feasibility study on the creation of a Facilitator for Energy Development at CEQ. (Sec. 30218)	
<b>PADRE NATIONAL ISLAND SEASHORE</b>	No similar provision.	Expresses sense of the Congress that regulation of subsurface mineral development at Padre National Island Seashore should be conducted as it would have been prior to conveyance of surface rights by the State of Texas to the Federal Government. (Sec. 30908)	
<b>PROHIBITION OF DRILLING IN THE GREAT LAKES</b>	No similar provision.	Encourages states with moratoria to continue them, and states without any prohibition on offshore drilling to enact a ban. Encourages Ontario to ban drilling and cease any drilling and production from drilling. (Sec. 30909)	
<b>APPEALS RELATING TO PIPELINE CONSTRUCTION PROJECTS</b>	No similar provision.	Mandates use of Record created by FERC under section 7 of the Natural Gas Act for appeals or reviews of Federal authority. Expresses sense of Congress that FERC framework should guide Federal and State proceedings in relation to pipeline decisions. (Sec. 12401)	

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<b>OFFSHORE DEVELOPMENT</b>			Allows DOI to suspend operations for offshore subsalt leases to allow the lessee to further analyze geologic or geophysical data when the suspension is necessary to prevent waste caused by drilling of unnecessary wells, and to maximize recovery of hydrocarbon resources under the lease. (Sec. 606)
<b>DOMESTIC OIL AND GAS RESOURCES MAXIMIZATION</b>			Requires an evaluation of the impact existing federal and State tax and royalty policies have on development of domestic oil and gas resources and development of alternative policies that help optimize recovery of domestic resources while ensuring environmental quality. (Sec. 608)
<b>ENVIRONMENTAL REVIEWS FOR PIPELINES</b>			Provides for the development of an interagency memorandum of understanding to expedite environmental review and permitting of pipeline projects. (Sec. 721)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<p><b>ALASKA NATURAL GAS PIPELINE</b></p>	<p>Sets forth provision for the construction of an Alaska natural gas pipeline to the lower 48 States. Provides for a single, expedited EIS and an expedited process for issuance of a certificate of public convenience and necessity. Prohibits an “over-the-top” route. Authorizes FERC to order expansion of the pipeline under certain conditions. Grants the U.S. Court of Appeals for the District of Columbia exclusive jurisdiction for claims. States that facilities and pipelines used for in-state delivery to Alaska consumers shall be deemed local distribution facilities, not subject to FERC. Requires Secretary of Energy to study alternative means of construction and operation if no applications have been filed within 18 months of enactment. Expresses sense of the Congress that the pipeline should use North American steel for construction and that the participation of small businesses should be maximized. Sets forth a grant program to train adult and dislocated workers in the skills needed for pipeline construction. (Sec. 131-135, Sec. 137-143)</p> <p>Expresses sense of the Congress that natural gas demand is sufficiently high such that Alaska natural gas will not displace production in Canada or the lower 48 States. (Sec. 145)</p>	<p>Same as S. 14, but includes a findings and purposes section. (Sec. 12001-12006, Sec. 12008-12014)</p> <p>No similar provision.</p>	<p>Establishes an expedited process for FERC to consider and act on any application for issuance of certificate of public convenience and necessity authorizing construction and operation of a gas pipeline. Provides for expedited review of such applications within 60 days of filing. Provides that ANGTA will continue to apply for applications for additions or expansions of pipeline facilities constructed under ANGTA. Requires study of Alaska in-state needs, establishment of “open seasons” to allow for allocation of initial or expanded capacity, and requires reasonable access for Alaska natural gas to be consumed within the State. Prohibits an “over-the-top” route. Declares each project a major Federal action requiring NEPA review, and sets an 18-month deadline for completion of such review with FERC as lead agency. Directs FERC to issue an order on the application within 60 days of the final EIS. Provides that FERC may order expansion of Alaska natural gas transportation projects if certain requirements are met. Provides the U.S. Court of Appeals for the District of Columbia with exclusive jurisdiction for claims. Includes conforming amendments to ANGTA. Requires the Secretary of Energy to study alternative means of construction and operation of an Alaska gas project if no application has been filed within 18 mos. of enactment. Provides that facilities and pipelines receiving natural gas for delivery to consumers within Alaska shall be deemed local distribution facilities. Provides that nothing precludes the construction or operation of additional pipelines to deliver natural gas for consumption within Alaska or distribution outside the State of Alaska.</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ALASKA NATURAL GAS PIPELINE, CON'T</b>			Expresses sense of Senate that sponsors of the Alaska pipeline project use North American steel and negotiate a project labor agreement. Requires FERC to coordinate with the State of Alaska when setting rates for Alaska natural gas transportation projects that also deliver natural gas for use within Alaska. Clarifies FERC authority to update permits under ANGTA so long as such action does not compel a change in the basic nature and general route of project. Allows DOE to require project sponsors to submit updated data, reports, permits, and impact analyses as deemed necessary by the Secretary. Authorizes \$20 million for Alaskans to be trained in skills and crafts required in the design, construction, and operation of an Alaska natural gas pipeline system. (Sec. 701-706, Sec. 708-709, Sec. 71-7151)
<b>ALASKA NATURAL GAS PIPELINE – FEDERAL COORDINATOR</b>	Establishes a position within the Executive Branch to coordinate Federal agencies and expedite projects. Coordinator is subject to Senate approval and may only serve until one year after the pipeline is completed.  Coordinator may prohibit certain terms, conditions and actions that are not required by law and may prevent or impair pipeline construction. Coordinator may not override FERC activities related to pipeline expansion or open season regulations. (Sec. 136)	Similar to S. 14, but does not require Senate consent and serves at the pleasure of the President.  Similar, but Coordinator's authority is limited in respect to FERC actions related to issuance of certificate of public convenience and necessity, environmental reviews, and pipeline expansion. (Sec. 12007)	Establishes a Federal Coordinator for Alaska Natural Gas Transportation projects to coordinate the activities of federal agencies and expedite the projects. (Sec. 707)
<b>ALASKA NATURAL GAS PIPELINE – LOAN GUARANTEES</b>	Provides Federal loan guarantees for up to 80 percent of total capital costs, not to exceed \$18 billion. (Sec. 144)	No similar provision.	Provides Federal loan guarantees to cover up to 80 percent of any loan to build the pipeline (capped at \$10 billion), provided that the applications for certificates for the project are filed prior to 18 months after the date of enactment. (Sec. 710)

**ARCTIC ENERGY**

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<p><b>LEASING PROGRAM FOR LANDS WITHIN THE COASTAL PLAIN</b></p>	<p>No similar provision.</p>	<p>Requires DOI to establish a competitive oil and gas leasing program in the Coastal Plain of the Arctic National Wildlife Refuge that will result in an environmentally sound program for exploration, development and production of resources. Repeals provision in Alaska National Interest Lands Conservation Act that prohibits leasing or production in ANWR until authorized by an act of Congress. Deems leasing program compatible with the purposes for which ANWR was established. Also deems a 1987 final EIS sufficient to satisfy NEPA requirements regarding the establishment of a leasing program. Requires EIS for other activities authorized and states that Secretary is not required to identify nonleasing courses of action. Authorizes a set-aside of 45,000 acres as Special Areas, requiring special management and protection to preserve unique and diverse character of the area. Limits authority to close additional land. (Sec. 30403)</p> <p>Sets forth procedures for lease sales, including bonus bids and a minimum of 200,000 acres for the first lease sale. Authorizes Secretary to grant lands to highest responsible qualified bidder. Prohibits the sale, exchange, or transfer of the lease without approval from the Secretary. (Sec. 30404-30405)</p> <p>Establishes lease terms, including provisions regarding: seasonal closing of lands, reclamation of lands within the Coastal Plain and any other Federal lands adversely impacted, environmental protection, employment of Alaska Natives, and a prohibition on exports. (Sec. 30406)</p>	

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<p><b>COASTAL PLAIN ENVIRONMENTAL PROTECTION</b></p>	<p>No similar provision.</p>	<p>Requires activities to meet a standard of “no significant adverse effect” and to employ best commercially available technology. Limits surface acreage coverage of production and support facilities to 2,000 acres within the Coastal Plain. Requires site-specific assessment and mitigation.</p> <p>Directs Secretary to issue regulations regarding environmental requirements, and sets forth 21 issues the regulations must address, including limits on exploration activities to the period between November 1 and May 1 each year; temporary support structures, such as ice road, ice pads, and ice airstrips; safety and construction standards that minimize adverse effects on migratory species and surface water flow; stringent reclamation and rehabilitation requirements; field crew environmental briefings, treatment and disposal of hazardous materials, and protection of cultural and archeological resources.</p> <p>Requires a plan for the siting and construction of facilities in order to avoid unnecessary duplication, consolidate common facilities, and enhance compatibility between wildlife and development.</p> <p>Directs Secretary to provide reasonable access to public lands for traditional uses. (Sec. 30407)</p>	<p>No similar provision.</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>EXPEDITED JUDICIAL REVIEW</b>	No similar provision.	Designates U.S. Court of Appeals for D.C. as court of jurisdiction. Requires complaints to be filed within 90 days of the start of action being challenged, with certain exceptions. Limits scope of judicial review to compliance with the terms of the title, based upon administrative records. Presumes identification of a preferred course of action to be correct, unless clear evidence shows otherwise. (Sec. 30408)	
<b>DISTRIBUTION OF REVENUES</b>	No similar provision.	Stipulates that 50% of royalty revenues shall be paid to Alaska and that bonus payments may be appropriated to LIHEAP. (Sec. 30409)	
<b>RIGHTS OF WAY</b>	No similar provision.	States that provisions in ANILCA regarding authorizing and administering transportation and utility systems do not apply to rights-of-way and easements issued across the Coastal Plain. Requires the Secretary to include terms and conditions that prevent a significant adverse environmental impact. (Sec. 30410)	
<b>CONVEYANCE</b>	No similar provision.	Directs the Secretary to convey to the Kaktovik Inupiat Corporation certain lands to fulfill the Corporation's entitlement under ANCSA, and to the Arctic Slope Regional Corporation, the remaining subsurface estate agreed to in an August 9, 1983 agreement. (Sec. 30411)	
<b>LOCAL GOVERNMENT AID AND ASSISTANCE</b>	No similar provision.	Establishes a fund to provide assistance to boroughs, municipal subdivisions, and other communities organized under Alaska law. Up to \$11 million may be deposited into the fund, from rents, bonuses, and royalties received by the U.S. Funds may be used for mitigation project planning and implementation, public facilities and services projects, and establishment of a coordination office in Kaktovik to advise developers on local conditions, impact and history. (Sec. 30412)	

**COAL**

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>CLEAN COAL POWER INITIATIVE</b>	<p>Provides \$200 million annually between 2004-2012. (Sec. 201)</p> <p>Establishes emissions milestones for the advancement on technology eligible for funding, requires that 80 percent of the funding be used for gasification technologies, and requires the Secretary to submit a report to Congress regarding expenditure of funds on projects selected before September 30, 2004. Requires the Secretary to fund gasification technologies, carbon separation and capture technologies, hybrid gasification/combustion and other technologies. All projects must demonstrate financial viability before they are eligible for funding assistance under this program. Federal assistance can not exceed 50 percent of project funding. (Sec. 202)</p> <p>Requires the Secretary to transmit to Congress a 10-year plan for the Initiative and report on the assessment of the program and whether or not the technical milestones have been achieved. (Sec. 203)</p> <p>Authorizes DOE to make competitive, merit-based grants to universities for research of clean coal technology. (Sec. 204).</p>	<p>Same as S. 14. (Sec. 50001(a))</p> <p>Similar to S. 14, but requires projects to demonstrate commercial viability, requires only 60 percent of funds be used for gasification technologies, and sets slightly lower miles stones for coal of less than 7,000 Btu. (Sec. 50002)</p> <p>Similar to S. 14, but prohibits use of funds until one month after the 10-year plan is transmitted to Congress. (Sec. 50001(b), Sec. 50003)</p> <p>Same as S. 14. (Sec. 50004)</p>	<p>Authorizes \$200 million per year from FY 2003 to FY 2011 for demonstrations of carbon sequestration, gasification, and other technologies to improve the environmental performance of coal-based electricity generation.</p> <p>Sets explicit performance goals in statute. Provides that not less than 80% of funding be used for carbon capture and sequestration, gasification, or other low- or zero-carbon technologies. (Sec. 1232)</p>
<b>REPEAL OF THE 160-ACRE LIMITATION</b>	<p>Authorizes the Secretary to add no more than 320 contiguous or cornering acres to a coal lease upon finding that such lease modification would be in the interest of the United States, would not displace competitive interest in the lands, and would not include lands or deposits that can be developed as part of another potential or existing operation. (Sec. 211)</p>	<p>Repeals 160-acre limitation. (Sec. 30702)</p>	



	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>MINING PLANS</b>	Provides that the Secretary, upon making certain determinations, may establish a period of greater than 40 years for the reserves of an entire logical mining unit. (Sec. 212)	Same as S. 14. (Sec. 30703)	
<b>PAYMENT OF ADVANCE ROYALTIES</b>	Authorizes the Secretary to accept advance royalties in lieu of the condition of continued operation for not to exceed twenty years and eliminates the prohibition on using advance royalties paid during the initial twenty year term of a lease to reduce production royalties after the twentieth year of a lease. (Sec. 213)	Similar to S. 14, but specifies that provisions apply to all leases in existence and those issued in the future, and strikes authority in existing law for Secretary to cease accepting advance royalties. Also changes the computation of advanced royalties to the average price for coal sold in the spot market. (Sec. 30704)	
<b>COAL LEASE PLAN DEADLINE</b>	Eliminates the deadline for submission of the lease operation and reclamation plan. (Sec. 214)	Same as S. 14. (30705)	
<b>APPLICATION OF AMENDMENTS</b>	Pertains to the applicability of the amendments to a coal lease issued before the date of enactment of the Act. (Sec. 215)	States that amendments in coal title apply to leases issued before, on, or after the date of enactment. (Sec. 30708)	
<b>BONUS BIDS</b>	No similar provision	Prohibits Secretary from requiring surety bonds or other assurances to guarantee payment of deferred bonus bids. Provides for termination of coal lease and loss of payments made if lessee fails to pay bonus bid once notified it is past due. (Sec. 30706)	
<b>INVENTORY REQUIREMENT</b>	No similar provision	Requires the completion and update of an inventory of public lands with coal, the extent to which development of those resources is impeded, and, if available, data on compliant and supercompliant coal. (Sec. 30707)	
<b>COALBED METHANE</b>	Requires the Secretary of the Interior to review the Department authority to resolve a conflict between the development of coal and coalbed methane from the same lease. The Secretary is required to report to Congress on a potential solution to this problem. (Sec. 221)	No similar provision.	Requires DOI to undertake a review of existing authority to resolve conflicts in the Powder River Basin. (Sec. 613)  Directs NAS to conduct a study on the effects of coalbed methane production on water and surface resources. (Sec. 607)

**INDIAN ENERGY**

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS</b>	Establishes an Office of Indian Energy Policy and Programs within the Department of Energy, charged with improving energy infrastructure to increase resource development, improve electrification, and lower energy costs on tribal land. Authorizes \$20 million in annual grant authority to the Director to promote planning and development of energy infrastructure, and \$2 billion to provide loan guarantees for energy projects. (Sec. 302)	No similar provision.	Establishes at DOE a comprehensive Indian energy program (including grants, loan guarantees, and a purchase preference) to assist tribes in meeting their energy needs and expanding opportunities to develop energy resources on tribal lands. (Sec. 401)  Establishes an Office of Indian Energy Policy and Programs within the DOE. Includes conforming amendments. (Sec. 402-403)
<b>DEFINITIONS</b>	Provides definitions for terms used throughout the amended title. This section, along with the provisions in the following three summaries, provide a complete replacement for Title XXVI of the Energy Policy Act of 1992. (Sec. 303, <i>amended sec. 2601</i> )	Similar to S. 14, but does not include Native Corporation land in definitions for “Indian land” or “Indian reservation”. Also excludes Native Corporations from definition of “Indian tribe”. Provides a definition for the term “Indian”, but not for “organization”, “Program”, “tribal land”, or “vertical integration of energy resources”. (Sec 30101, <i>amended sec. 2601</i> )	
<b>RESOURCE DEVELOPMENT AND REGULATION</b>	Authorizes the Secretary of Energy to provide tribes grants and low-interest loans, as well as technical assistance in developing energy resources located on Indian land and to expand a tribe’s technical and managerial abilities. Authorizes the Secretary of the Interior to provide grants to cultivate legal training and implementation of tribal laws governing the development of energy projects and protection of the environment. Provides funding for feasibility studies as necessary to help tribes develop their energy resources. (Sec. 303, <i>amended sec. 2602-2603</i> )	Requires the Secretaries of Energy and the Interior to make available scientific and technical data for use in developing resources on Indian land and land conveyed to a Native Corporation. (Sec. 30101, <i>amended sec. 2602</i> )	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>LEASES, BUSINESS AGREEMENTS, AND RIGHTS-OF- WAY</b>	<p>Authorizes tribes to enter into leases or business agreements and issue rights-of-way without Secretarial approval, so long as those leases, business agreements, or rights-of-way conform to regulations promulgated by the Secretary and tribes have entered a tribal energy resource agreement. Establishes a process by which a tribe must submit a energy resource agreement to the Secretary for approval, and requires an opportunity for public comment on such agreements.</p> <p>Requires the agreement to set forth an environmental review process that includes identification and mitigation of all environmental impacts, including effects on cultural resources.</p>	<p>Similar to S. 14, with the following exceptions:</p> <ul style="list-style-type: none"> <li>– requires tribes to submit regulations rather than a tribal energy resource agreement to the Secretary (regulations must address many of the same issues required by resource agreements in S. 14)</li> <li>– does not include requirement for Secretary approval of certain oil and gas leases</li> <li>– Secretary may allow public comment on tribal regulations</li> </ul> <p>Similar, but does not include language on cultural resources.</p>	<p>Allows an Indian tribe to lease directly land and rights-of-way for energy facilities, without case-by-case review by the Secretary of the Interior, if the tribe develops, and the Secretary approves, tribal regulations, the energy facilities serve facilities located on tribal lands, and the term of the agreement does not exceed 30 years. (Sec. 404)</p>
<b>LEASES, BUSINESS AGREEMENTS, AND RIGHTS-OF- WAY CON’T</b>	<p>Requires the Secretary to conduct an annual trust asset evaluation.</p> <p>States that Secretary retains trust obligation to protect the rights of a tribe in the event that terms of a lease, business agreement or right-of-way are violated but other parties.</p> <p>Provides for compliance review of any energy resource agreement, limiting those who may initiate action to “interested parties” and stipulates that tribal remedies must be exhausted before submitting a petition to the Secretary. Sets forth actions Secretary may take and the appeals process for tribes. (Sec. 303, <i>amended sec. 2604</i>)</p>	<p>No similar provision.</p> <p>No similar provision.</p> <p>Similar, but does not limit parties or require tribal remedies to be used. Secretarial actions expanded to include rescinding individual leases, business agreements or rights-of-way. Does not include language designating Secretary’s decision on appeal a final agency action. (Sec. 30101, <i>amended sec. 2603</i>)</p>	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>MISCELLANEOUS PROVISIONS</b>	<p>Encourages the Administrators of the Bonneville Power Authority and Western Area Power Administration to support Indian tribal energy development and clarifies their authority to purchase firm and replacement power from tribes and for tribes to use WAPA allocations for the same purpose.</p> <p>Directs the Secretary of the Interior to submit a report on possible barriers to energy development contained in the Indian Mineral Development Act, with suggestions for removing those impediments. (Sec. 303, <i>amended sec. 2605-2606</i>)</p> <p>Requires DOE, in cooperation with DOI and the Army Corps to study the feasibility of developing a demonstration project to use wind energy generated by Indian tribes and hydropower generated by the Army Corps on the Missouri River to supply firming power to WAPA. (Sec. 303, <i>amended sec. 2607</i>)</p>	<p>No similar provision.</p> <p>No similar provision.</p> <p>No similar provision.</p>	<p>Authorizes BPA and the WAPA to provide technical assistance to tribes seeking to use high-voltage transmission lines for the delivery of electrical power. Requires the Secretary of Energy to report to Congress on tribes' use of Federal power allocations. (Sec. 407)</p> <p>Requires the Secretary of the Interior to undertake a review and make recommendations regarding tribal opportunities under the Indian Mineral Development Act. (Sec. 405)</p> <p>Requires the Secretary of Energy, in coordination with the Secretary of the Interior and the Army Corps, to conduct a feasibility study of developing a demonstration project that would use wind energy generated by Indian tribes and hydropower generated by the Army Corps on the Missouri River to supply firming power to WAPA. (Sec. 408)</p>
<b>FOUR CORNERS PROJECT</b>	Makes Dine Power Authority eligible for funding under amended section 2602 and section 302 of this Act. (Sec. 304)	No similar provision.	
<b>ENERGY EFFICIENT HOUSING ON TRIBAL LAND</b>	Directs HUD to provide technical assistance to Tribes and other Tribal housing entities that will initiate and expand the use of energy-saving technologies in new home construction and housing rehabilitation. (Sec. 305)	No similar provision.	
<b>CONSULTATION</b>	Requires DOE and DOI to consult with Indian Tribes in carrying out this Act. (Sec. 306)	No similar provision.	
<b>RENEWABLE ENERGY STUDY</b>			Requires DOE to report on energy consumption and renewable energy development potential on Indian land, including identification of barriers to development. (Sec. 406)

**NUCLEAR**

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<p><b>PRICE-ANDERSON ACT AMENDMENTS</b></p>	<p>Indefinitely extends indemnification provisions for Nuclear Regulatory Commission (NRC) licensees, Department of Energy (DOE) contractors, and nonprofit educational institutions. (Sec. 402)</p> <p>Increases the maximum annual assessment under the standard deferred premium on NRC licensees from \$10 million to \$15 million, and adjusts this number for inflation in the future. For DOE contractors, the total indemnification is set at \$10 billion, adjusted inflation in the future, and indemnification for nuclear activities outside the United States is increased from \$100 million to \$500 million. Requires DOE and NRC to report to Congress on the status of the Price-Anderson program by August 1, 2013. Directs the Secretary to adjust for inflation the standard deferred premium for NRC licensees at least once every 5 years. Allows NRC to consider a combination of small modular reactors at one site to be a single facility for purposes of Price-Anderson indemnification. Limits the applicability of these amendments to nuclear incidents that occur after the date of their enactment. (Sec. 403-409)</p> <p>Ends the automatic remission of civil penalties for nuclear safety violations by DOE contractors that are nonprofit institutions and establishes a limit on such civil penalties not to exceed the total fees paid within one year to the nonprofit institution. (Sec. 410)</p>	<p>Provides a 15-year extension. (Sec. 14002)</p> <p>Same as S. 14. (Sec. 14003-14009)</p> <p>Similar to S. 14, but requires the Secretary to undertake a rulemaking on the nonprofit limitation amendment. (Sec. 14015)</p>	<p>Extends indemnity authority to DOE contractors indefinitely, and to NRC licensees and non-profit education institutions through 2012. (Sec. 502)</p> <p>Increases maximum amount of DOE contractor indemnification to \$10 billion, and increases limit on liability for nuclear incidents occurring outside U.S. to \$500 million. (Sec. 503-504)</p> <p>Requires DOE and NRC to submit a report on the need for Price-Anderson in 2008, and requires DOE to adjust liability limits for inflation every 5 years. (Sec. 505-506)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>PRICE-ANDERSON ACT AMENDMENTS, CON'T</b>	<p>No similar provision.</p> <p>No similar provision.</p> <p>No similar provision.</p>	<p>Prohibits assumption of liability by the United States for incidents occurring at facilities located in countries identified by the State Department as state sponsors of terrorism. (Sec. 14010)</p> <p>Requires NRC to consult with Homeland Security official prior to indemnifying a utilization facility to ensure that the location and design of the facility provides adequate protection against a terrorist attack. (Sec. 14013)</p> <p>Authorizes the Federal Government to sue DOE contractors, except nonprofit institutions, for amounts paid out in an incident caused by intentional misconduct, and prohibits the DOE from reimbursing the contractor for any funds recovered in court. (Sec. 14014)</p>	<p>Repeals provisions in existing law that exempt specific contractors from civil penalties. Allows Secretary of Energy to limit civil penalties for non-profit educational institutions to the annual contract fee amount. Establishes effective date. (Sec. 507, 509)</p> <p>Adds definition of modular reactors for purposes of indemnification (Sec. 508)</p>
<b>DEPLOYMENT OF NEW NUCLEAR PLANTS</b>	<p>Allows the Secretary to provide loan guarantees or purchase agreements to supplement private sector financing for new advanced reactor design power plants, if it is determined that the plant is necessary to contribute to energy security, fuel or technology diversity, or clean air attainment goals. Financial assistance shall not exceed 50 percent of the project costs. The total generating capacity eligible for assistance is 8400 megawatts. (Sec. 421-425)</p>	<p>No similar provision.</p>	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ADVANCED REACTOR HYDROGEN CO-GENERATION PROJECT</b>	Establishes a project to pursue the research, development, design, construction and operation of a hydrogen production co-generation system using an advanced reactor to enable R&D on advanced reactors and alternative approaches for hydrogen production. Any reactor studied must offer improved attributes over existing commercial reactors of: enhanced safety, reduced waste, enhanced efficiency, potential for enhanced economic viability and physical security, and increased proliferation resistance. Designates the Idaho National Engineering and Environmental Laboratory (INEEL) as the lead laboratory and requires a national steering committee be established to guide the programs and sets forth project requirements. Caps funds for reactor construction at \$500 million. (Sec. 431-435)	No similar provision.	
<b>HYDROGEN PRODUCTION STUDY</b>			Requires DOE to submit to Congress within 120 days of enactment a study that identifies current or potential DOE nuclear facilities that could produce hydrogen. (Sec. 1709)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>URANIUM SALES AND TRANSFERS</b>	Limits annual deliveries of uranium from the government to 3 million pounds of U <sub>3</sub> O <sub>8</sub> equivalent annually through 2009, 5 million pounds in 2010 and 2011, 7 million pounds in 2012, and 10 million pounds in subsequent years. Requires sales to be conducted through long-term contracts and establishes a preference for government transfer to entities employing recovery and extraction of uranium from contaminated uranium-bearing materials. Exemptions to the policy are allowed for sales or transfers in certain circumstances, particularly in regards to national interests and national security. Certification by the President is required prior to any sale or transfer to assure that the material is not needed for national security. Price paid to the Secretary for any sale can not be less than fair market value. Secretary must solicit views from the Department of State and National Security Council to assure that any sale will not harm national security, including implementation of the HEU arrangement. (Sec. 441)	Authorizes the Secretaries of Energy and the Army to transfer uranium if the material is not needed for national security, sales are done at fair market value, and contracts are at least 3 years in duration. Limits annual deliveries of uranium from the government to 3 million pounds of U <sub>3</sub> O <sub>8</sub> equivalent annually through 2009, 5 million pounds in 2010 and 2011, 7 million pounds in 2012, and 10 million pounds in subsequent years. Establishes a preference for uranium recovered from uranium-bearing materials. Authorizes the transfer of 9550 metric tons of uranium to USEC. Requires the Secretary to notify Congress upon a determination that USEC has failed or may fail to perform obligations under the July 17, 2002 Agreement. Committees of jurisdiction must have sufficient time to comment prior to the Secretary taking any action to terminate, waive, or modify the agreement. Allows the Secretary to provide uranium enrichment service under certain conditions. (Sec. 14030)	Sets limits on the volume of uranium hexafluoride that can be sold from DOE's uranium stockpile. Exempts certain transactions from the volume limit. (Sec. 511)
<b>DECOMMISSIONING PILOT PROGRAM</b>	Authorizes \$16 million for a pilot program to decommission and decontaminate the sodium-cooled fast breeder experimental test-site reactor in Arkansas. (Sec. 442)	No similar provision.	Authorizes \$16 million for a pilot project to decommission a sodium-cooled reactor in Arkansas. (Sec. 516)
<b>THORIUM REIMBURSEMENT</b>			Increases the authorization for the DOE to reimburse Kerr-McGee Chemical LLC for the cost of cleaning up thorium wastes generated pursuant to federal contracts from \$140 million to \$365 million. Sets timetable for payment. (Sec. 512)



	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>FAST FLUX TEST FACILITY</b>	No similar provision.	No similar provision.	Prohibits the DOE from reactivating the Fast Flux Test Facility for atomic energy defense activities, space-related missions, or other nuclear programs that could be carried out at existing operating facilities. (Sec. 513)
<b>OFFICE OF SPENT NUCLEAR FUEL RESEARCH</b>	No similar provision.	No similar provision.	Establishes a new Office of Spent Nuclear Fuel Research in DOE to investigate technologies for the treatment, recycling, and disposal of spent nuclear fuel and high-level radioactive waste. (Sec. 515)
<b>NUCLEAR FUEL TRANSPORTATION STUDY</b>	No similar provision.	No similar provision.	Requires DOT to enter into an agreement with the National Academy of Sciences under which NAS will study procedures by which DOE selects routes for transportation of spent nuclear fuel between reactors and DOE storage facilities. Requires study to begin within 30 days of enactment, and requires report on results of study within 6 months. (Sec. 1707)
<b>NUCLEAR SECURITY</b>	No similar provision.	Directs NRC to establish system of secure transfer of nuclear materials that ensures that a manifest accompanies transfers or receipts of certain nuclear materials; persons accompanying the materials have been subject to a background check; and materials are received at the appropriate locations. (Sec. 14011)  Requires Secretary of Energy to make recommendation on reducing the threat resulting from the theft or diversion of HEU. (Sec. 14032)	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<p><b>NUCLEAR SECURITY, CON'T</b></p>	<p>No similar provision.</p>	<p>Requires a study on possible security threats to nuclear facilities. Report must classify risks according to which entity is responsible for protection – the Federal Government or NRC licensees. Within 90 days of the completion of this report, the President must report on actions taken to address threats for which the Federal Government is responsible. Directs the NRC to create an operation safeguards response evaluation program for sensitive facilities and periodically test such system through force-on-force exercises. (Sec. 14012)</p> <p>Allows NRC to authorize certain members, employees, contractors, subcontractors, and licensees to carry firearms while in the disposition of official duties. Authorizes such persons to make arrests without a warrant if they believe a felony is being or has been committed, and sets forth limitations on arrest capabilities. (Sec. 14026)</p> <p>Expands NRC authority to regulate dangerous weapons to include facilities, installations, or real property subject to NRC licensing or certification authority. (Sec. 14027)</p> <p>Increases penalties for sabotage of nuclear facilities or fuel to \$1 million and/or imprisonment for up to life in prison without parole. (Sec. 14028)</p> <p>Prevents the export or transfer to countries identified as State sponsors of terrorism of any nuclear materials; production or utilization facilities; or related components, technologies, substances, technical information, goods, or services. (Sec. 14034)</p>	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>COOPERATIVE R&amp;D &amp; SPECIAL DEMONSTRATION PROJECTS FOR URANIUM MINING</b>	No similar provision.	Authorizes \$30 million for cost-shared R&D projects on uranium mining technologies, and for competitive demonstration projects on environmentally friendly production, restoration of well fields, and decommissioning and decontamination. Projects are to be cooperatively undertaken with domestic uranium producers. (Sec. 14029)	
<b>LICENSES</b>	No similar provision.	Clarifies that the commercial licenses issued by the NRC are limited to 40 years, beginning once authorization to commence operations is given. (Sec. 14021)	Provides that, in the case of a combined construction and operating license, the duration of the operating phase of the license shall not be less than if the licenses were awarded separately. (Sec. 521)
<b>NRC MEETINGS</b>	No similar provision.	Requires a public record of all NRC meetings in which a quorum is present and public notification of such meetings within 15 days afterwards. States that the section does not apply to open meetings provisions in existing law that require prior public notification of meetings. (Sec. 14022)	
<b>COST RECOVERY FROM GOVERNMENT AGENCIES</b>	No similar provision.	Strikes language that limited NRC cost recovery authority from Federal agencies to just those facilities licensed for electrical or heat energy or uranium enrichment; makes provision applicable to all facilities that apply for or are issued a NRC license or certificate. Makes technical corrections. (Sec. 14024)	
<b>ELIMINATION OF PENSION OFFSET</b>	No similar provision.	Modifies general authorities of NRC to allow contractors with skills critical to the execution of NRC duties to be exempted from requirements that pay be reduced equal to any FERS pension disbursements. (Sec. 14025)	Exempts from pension and retirement penalties on former NRC employees who return as consultants. (Sec. 541)
<b>MEDICAL ISOTOPE PRODUCTION</b>	No similar provision.	Allows the transfer of HEU for medical isotope production to Canada, Belgium, France, Germany, and the Netherlands under certain conditions. (Sec. 14031)	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ANTITRUST REVIEW</b>	No similar provision.	No similar provision.	Requires the Attorney General to review licenses issued by the NRC to ensure that such license is consistent with antitrust laws. (Sec. 531)
<b>DECOMMISSIONING</b>	No similar provision.	No similar provision.	Extends NRC jurisdiction to include ensuring sufficient funding for decommissioning, and exempts decommissioning funds from being used to satisfy creditors until decommissioning is complete. (Sec. 532)
<b>NRC TRAINING PROGRAM</b>	No similar provision.	Directs NRC to establish a training program to address shortages of individuals with critical nuclear safety skills. Authorized \$1 million for such purpose. (Sec. 14023)	Authorizes \$1 million for each of fiscal years 2003-2006 for training and fellowships for individuals with critical safety skills. (Sec. 542)
<b>WHISTLEBLOWER PROTECTION</b>	No similar provision.	Provides employees filing claims under whistleblower protection provisions the right to pursue action in U.S. District Court if the Secretary has not issued a final decision in 180 days and there is no showing that the delay is due to bad faith on the part of the claimant. Modifies the definition of “employer” to include the Department of Energy, NRC, and all contractors and subcontractors of the Department of Energy and NRC. (Sec. 14033)	
<b>LIMITATION ON LEGAL FEE REIMBURSEMENT</b>	No similar provision.	Prohibits DOE from reimbursing contractors or subcontractors for legal fees incurred for adverse determinations against the contractor or subcontract in relation to whistleblower protections. (Sec. 14035)	
<b>WEST VALLEY TRANSFER</b>	Requires the Secretary to submit a plan to Congress regarding the transfer of facilities, property, and radioactive waste at the Western New York Service Center in West Valley, N.Y. (Sec. 443*)	Similar to S. 14, but requires the plan to be submitted by December 31, 2003. (Sec. 14036)	No similar provision.

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>FEASIBILITY STUDY ON DEVELOPING COMMERCIAL FACILITIES AT DOE SITES</b>	No similar provision.	Requires Secretary of Energy to conduct a study on the feasibility of developing commercial nuclear production facilities at existing DOE sites. Study must include estimates on cost savings, options for incorporating new technologies, potential for improved licensing and security oversight, and other relevant issues. (Sec. 14037)	No similar provision.
<b>EXTERNAL REGULATION OF DOE</b>	No similar provision.	See same heading on page 84.	No similar provision.

<b>RENEWABLES</b>			
	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ASSESSMENT OF RENEWABLE ENERGY RESOURCES</b>	Requires DOE to assess annually the renewable energy resources available within the United States; authorizes \$10 million for each of fiscal years 2004 through 2008. (Sec. 501)	Similar to S. 14, but requires a report in 90 days and doesn't cap authorization levels. (Sec. 16074)	Requires DOE to carry out periodic assessments of renewable energy resources available in the United States, available infrastructure and other relevant information. (Sec. 262)
<b>RENEWABLE ENERGY PRODUCTION INCENTIVE (REPI)</b>	Extends REPI authorization through 2023, expands eligibility to include cooperatives and municipal utilities, and includes landfill gas as an eligible energy resource. Requires 60 percent of available funds to go to solar, wind, geothermal, and closed-loop biomass if, in a given calendar year, funds are not available for full payments. (Sec. 502)	Same as S. 14. (Sec. 16072)	Extends authorization for incentive program for producing electricity from renewable energy sources. Extends eligibility to cooperatives and municipal utilities, and for landfill gas, incremental hydropower, and ocean tidal. Authorizes such sums as are necessary through 2023, no more than 30% of which can be used for incremental hydropower. (Sec. 261)
<b>RENEWABLE ENERGY ON FEDERAL LANDS</b>	Requires DOI, in cooperation with USDA, to report to Congress within 24 months on opportunities to develop renewable energy on public lands; requires NAS to study potential for renewable energy potential on the OCS. (Sec. 503)  No similar provision.	Same as S. 14. (Sec. 16073)  Expresses sense of the Congress that, within 10 years after enactment, the Secretary of the Interior shall seek to have approved non-hydropower renewable energy projects on public lands sufficient to generate at least 10,000 megawatts of electricity. (Sec. 30906)	Requires DOI, in consultation with DOE and USDA, to develop a cost-shared demonstration program to encourage development of wind and solar energy on Federal lands. Requires DOI to report to Congress on statutory or regulatory changes necessary to encourage Indian energy development. Requires NAS to study potential for renewable energy development in OCS areas, and report to Congress. (Sec. 265)
<b>PERMITTING OF WIND ENERGY PROJECTS ON FEDERAL LAND</b>	No similar provision.	Directs Secretary of the Interior to process applications for rights-of-way for wind energy testing and monitoring facilities in accordance with interim procedures set forth in a October 16, 2002 Instruction Memorandum, which designates such applications as high priority (to be completed within 30 days), allows rights-of-way to be governed by existing land use plans, and limits the scope of environmental reviews. (Sec. 30905)	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ASSESSMENT OF OCEAN ENERGY RESOURCES</b>	No similar provision.	Requires an annual assessment of ocean thermal energy resources (except in areas currently under moratoria) and an estimate of costs needed to encourage efforts to commercialize such resources. (Sec. 30907)	
<b>FEDERAL PURCHASE REQUIREMENT</b>	Requires DOE to ensure that not less than 3% of the electricity in fiscal years 2005 through 2007 used by the Federal government is from renewable sources. Increases the purchase requirement to 5% for FY 2008 through 2010, and 7.5% for FY 2011 and thereafter. Eligible renewable energy sources include solar, wind, biomass, geothermal, municipal solid waste, or additional hydro generation from existing dams. Provides double credits for renewable electricity produced on site, on Federal lands, or on tribal lands. (Sec. 504)	No comparable provision.	Requires the President to seek to ensure to the extent economically feasible and technically practicable that, in FY 2002, 3% of the total electricity purchased by the federal government be generated by a renewable energy source. Increases this percentage to 7.5% in FY 2010 and thereafter.  Requires at least 10% of this amount to be generated by Indian Tribes. Requires a biennial report to Congress, starting in 2004, on compliance. (Sec. 263)
<b>INSULAR AREA RENEWABLE AND ENERGY EFFICIENCY PLANS.</b>	Requires DOE to update energy assessments and the comprehensive energy plan for increasing renewable energy resources and energy efficiency for insular areas. (Sec. 505)	Amends US Insular Areas Authorization Act of 1980 to require updated energy plans for the territories and Freely Associated States. Removes provisions requiring 20 percent cost-share for energy efficiency and renewable energy projects. Establishes a grant program for the territories to protect electric transmission and distribution lines from hurricane and typhoon damage, with a 25 percent cost-share requirement. (Sec. 30801)	Requires submission by DOE and DOI jointly to Congress of updated long-term energy plans of territories and insular areas by December 31, 2002 (Sec. 1704)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>HYDROELECTRIC LICENSING</b>	Amends the Federal Power Act to provide a hearing on the record in cases of disputed issues of material fact with respect to conditions or fishways that may be imposed by Federal resource agencies on a hydroelectric license application. Requires Federal resource agencies to consider alternative conditions or prescriptions proposed by license applicants. Provides for a determination on the record as to whether the alternative meets certain environmental criteria and would be more cost-effective or would result in less loss of generating capacity, and if such determination is positive, requires the Federal agency to adopt the alternative condition or prescription. Provides for dispute resolution if needed. (Sec. 511)	Same as S. 14. (Sec. 13001)	Requires agencies to adopt alternative conditions or fishways if proposed by an applicant for a hydroelectric relicensing program if the applicant can demonstrate that such condition is equally or more protective of the environment than conditions suggested by the agency and would be more cost-effective or would result in less loss of generating capacity. Requires a written statement to be placed in the record of the proceeding explaining the choice of conditions for the license. Sets filing deadlines for applications of new licenses - 24 months prior to expiration of license if prior to 2008 and at least 36 months prior to expiration of license after 2008. (Sec. 301)
<b>OTHER HYDROPOWER PROVISIONS</b>	No similar provision.	Establishes a 10-year production incentive program for hydroelectric electric facilities that are owned or solely operated by non-Federal amendments. Regardless of kilowatt capacity, facilities may receive 1.8 cents per kilowatt hour, adjusted for inflation and capped at \$750,000. (Sec. 13201)  Establishes an incentive program for capital improvements that result in efficiency improvements of at least 3 percent. Payments are limited to 10 percent of the cost of such improvements, capped at \$750,000 per facility. (Sec. 13202)	No similar provision.



	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<p><b>OTHER HYDROPOWER PROVISIONS, CON'T</b></p>	<p>No similar provision.</p>	<p>Extends eligibility for the small hydroelectric power projects program under PURPA to dams constructed on or before March 4, 2003. (Sec. 13203)</p> <p>Requires Secretary of Energy, along with Secretaries of the Interior and the Army, to report to Congress regarding opportunities to increase hydropower generation at existing Federal water regulation, storage and conveyance facilities. (Sec. 13204)</p> <p>Requires Secretary of Interior, along with PMA Administrators, to report to Congress regarding opportunities for increasing hydroelectric power production at existing facilities under the jurisdiction of the Secretary. (Sec. 30501)</p> <p>Requires Secretary of Interior to report to Congress regarding opportunities for increased operational efficiency at hydropower facilities under the jurisdiction of the Secretary with production capacity greater than 50 megawatts. (Sec. 30502)</p> <p>Directs Secretary of Interior to review electric power consumption at Reclamation water pumping facilities and make adjustments to reduce power consumption during peak power consumption periods. Requires consent of irrigation customers. (Sec. 30503)</p>	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>GEOHERMAL COMPETITIVE LEASE SALE REQUIREMENTS</b>	Directs the Secretary to hold a competitive lease sale for nominated lands at least once every two years and to make non-competitive leases available for tracts of land on which no competitive lease sale bids are received. Makes pending leases a priority. (Sec. 521)	Similar to S. 14, but limits nominations to those from “qualified” companies and individuals, and directs Secretary to hold competitive lease sales for areas with pending leases within 180 days of enactment. (Sec. 30601)	
<b>GEOHERMAL LEASING AND PERMITTING ON FEDERAL LANDS</b>	Requires DOI and USDA to enter into a memorandum of understanding which identifies known geothermal resources, establishes administrative procedures for processing lease applications, and establishes a data retrieval system. (Sec. 522)	In addition to those requirements of the memorandum of understanding reflected in the Senate proposal, a five-year plan for geothermal leasing on public land in the national Forest System shall be developed. (Sec. 30604)	
<b>GEOHERMAL LEASING AND PERMITTING ON FEDERAL LANDS WITHDRAWN FOR MILITARY PURPOSES</b>	Requires DOI and DOD to submit a report to Congress on leasing and permitting of geothermal resources on Federal lands for military purposes. (Sec. 523)	No similar provision.	
<b>REINSTATEMENT OF GEOHERMAL LEASES TERMINATED FOR FAILURE TO PAY RENT</b>	Inserts “or was inadvertent” after “reasonable diligence” in Sec. 5(c) of the Geothermal Steam Act of 1970. (Sec. 524)	No similar provision.	
<b>ROYALTY REDUCTION AND RELIEF</b>	Requires DOI to undertake rulemaking on geothermal royalties and on a schedule of fees for low-temperature geothermal leases. (Sec. 525)	No similar provision.	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>LOW TEMPERATURE GEOTHERMAL ENERGY RESOURCES</b>	No similar provision.	Requires the lessee of a low temperature geothermal resource in which all resources other than heat are returned to the ground to pay, in lieu of royalties, an annual fee per well of not less than \$100 and not more than \$1,000, based on a scale to be issued by the Secretary. Allows existing leases to convert to qualified development and direct utilization. (Sec. 30602)	
<b>ROYALTIES AND NEAR-TERM PRODUCTION INCENTIVES</b>	No similar provision.	Allows royalties due on certain production and expansion of leases to be reduced by half, and provides for the return of 100 percent of royalties to States. Sets royalties for direct use of geothermal steam and associated resources, other than low temperature, at 3.5 percent of gross proceeds for electricity and .75 percent of gross proceeds from sale of items produced by direct use of resources. (Sec. 30603)	
<b>REVIEW AND REPORT TO CONGRESS</b>	No similar provision.	Requires Secretary of Interior to report to Congress the status of all moratoria on and withdrawals from leasing under the Geothermal Steam Act of 1970. (Sec. 30605)	
<b>REIMBURSEMENT FOR CERTAIN NEPA COSTS</b>	No similar provision.	Amends the Geothermal Steam Act to provide for reimbursement to lessees, operators or lease applicants, through royalty credits, of costs related to NEPA compliance only if the Secretary lacks funding, the person paid the costs voluntarily, and adequate records are provided. (Sec. 30606)	
<b>ASSESSMENT OF GEOTHERMAL POTENTIAL</b>	No similar provision.	Requires Secretary to submit an updated Assessment of Geothermal Resources to Congress, and to update periodically in the future. (Sec. 30607)	
<b>COOPERATIVE OR UNIT PLAN</b>	No similar provision.	Makes technical and clarifying changes to Sec. 18 of the Geothermal Steam Act. (Sec. 30608)	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ROYALTY ON BYPRODUCTS</b>	No similar provision.	Sets royalties on mineral byproducts equal to royalties on such mineral. (Sec. 30609)	
<b>REPEAL OF AUTHORITIES OF SECRETARY</b>	No similar provision.	Repeals provisions related to readjustment of lease terms and conditions in the Geothermal Steam Act, and strikes provisions requiring notice to Federal agencies upon modifying terms related to the surface area of a lease. (Sec. 30610)	
<b>CREDITING OF RENTAL TOWARD ROYALTY</b>	No similar provision.	Applies a credit to the annual rental due for any rental paid before the first day of the year in which it is due. (Sec. 30611)	
<b>LEASE DURATION AND WORK COMMITMENT REQUIREMENTS</b>	No similar provision.	Caps lease extensions at a total term of 20 years. All extensions beyond initial 10-year term are contingent on satisfying work commitments. Requires lessee to pay for work value not completed, and allows for termination of lease if work value is not paid. Allows continuation of lease beyond initial extension indefinitely as long as geothermal steam is produced or used in commercial quantities. (Sec. 30612)	
<b>ADVANCED ROYALTIES</b>	No similar provision.	Requires a lessee to pay royalty in advance, at a designated rate, if production of heat or energy under a geothermal lease is suspended after the date on which royalty is required (Sec. 30613).	
<b>ANNUAL RENTAL</b>	No similar provision.	Modifies annual rental rates in the Geothermal Steam Act and allows for the termination of leases that fail to pay the annual rental rate. (Sec. 30614)	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>BIOMASS ENERGY GRANT PROGRAM</b>	<p>Authorizes a grant program to help offset the cost of purchasing certain biomass from Federal or Indian lands for electricity, heat, transportation fuels, or petroleum-based product substitutes. Grants are limited to no more than \$20 per green ton of biomass delivered. Creates another grant program to encourage the use of biomass within communities located near areas of Federal lands that are at significant risk to catastrophic wildfire, disease or insect infestation, with individual grants limited to no more than \$500,000. Sets authorization levels at \$25 million for the two programs. Requires the Secretaries of the Interior and Agriculture to submit a joint report to Congress that describes the interim results of the program. (Sec. 531-534)</p>	<p>Similar to S. 14, but definitions, including one for biomass, vary. Improved biomass use grants capped at \$100,000, and overall authorizations for grant programs set at \$50 million. (Sec. 30301).</p>	

**ENERGY EFFICIENCY**

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ENERGY MANAGEMENT REQUIREMENTS</b>	Changes the baseline for measuring Federal energy performance from 1985 to 2000 and requires a 20 percent improvement over 2000 levels by 2013. Provides exclusions from these requirements under certain conditions and directs the Secretary to issue guidelines that establish criteria for such exclusions. Authorizes agencies to retain funds appropriated for energy expenditures that are not spent because of energy savings and to use those funds for energy efficiency and renewable energy projects. Requires DOE to submit recommendations to Congress no later than December 31, 2011 for energy performance requirements for fiscal years 2014 through 2022. (Sec. 601)	Similar to S. 14, but sets the baseline at 2001 and requires a report by 2012 for fiscal years 2014 through 2023. (Sec. 11002).	Changes the baseline for measuring federal energy performance from 1985 to 2000 and requires a 20 percent improvement by 2011. (Sec. 911)
<b>ENERGY USE MEASUREMENT AND ACCOUNTABILITY</b>	Requires federal buildings to be metered or sub-metered by October 1, 2010, using advanced meters, to the maximum extent practicable. Requires agencies to develop plans to use real-time electricity consumption data to reduce energy costs and consumption. (Sec. 602)	Same as S. 14. (Sec. 11003)	Requires federal buildings to be metered or sub-metered by October 1, 2004 and requires agencies to develop plans to use real-time electricity consumption data to reduce energy costs and consumption. (Sec. 912)
<b>FEDERAL BUILDING PERFORMANCE STANDARDS</b>	Directs the Secretary to establish new energy efficiency performance standards for new federal buildings. Standards shall require that new buildings achieve energy consumption levels at least 30 percent below specified building codes and incorporate sustainable design principles. (Sec. 603)	Similar to S. 14, but allows the use of the most recent ASHRAE Standard 90.1 or the most recent International Energy Conservation Code as the baseline for measuring 30 percent consumption reduction in new buildings. (Sec. 11004)	Directs the Secretary to establish revised energy efficiency performance standards for new federal buildings. Requires Federal agencies to submit statements of compliance for all new buildings. Establishes energy labeling program for efficient buildings. Authorizes such sums as may be necessary. (Sec. 913)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ENERGY EFFICIENCY IN FEDERAL LAND MANAGEMENT</b>	No similar provision.	Expresses sense of the Congress that Federal agencies should use energy efficiency technologies in the management of natural resources. Requires Secretaries of Agriculture, the Interior, and Commerce to use energy efficient technologies, as practicable, in public and administrative buildings associated with the management of public lands and resources under their respective jurisdictions. Also requires the use of energy efficient motor vehicles in the management of such lands, to the extent practicable. (Sec. 30904)	
<b>ENERGY SAVINGS PERFORMANCE CONTRACTS</b>	<p>Permanently extends existing authority provided to Federal agencies to contract with energy service companies to assume the capital costs of installing energy and water conservation equipment and renewable energy systems in Federal facilities or buildings, and recover costs and profit from associated life-cycle energy cost savings over the term of the contract. Expands use of Energy Savings Performance Contracts (ESPCs) to cover replacement of existing Federal buildings or facilities with new, more energy-efficient buildings or facilities and expands the definition of energy savings to include a reduction in water costs.</p> <p>Authorizes a pilot program for up to 10 ESPC contracts for “non-building applications”, provided that the total cost of projects under the pilot program does not exceed \$100 million. (Sec. 604).</p>	<p>Similar to S. 14, but does not specify “life-cycle” energy savings.</p> <p>No similar provision. (Sec. 11006)</p>	<p>Permanently extends existing authority provided to Federal agencies to allow energy service companies to assume the capital costs of installing energy and water conservation equipment and renewable energy systems in Federal facilities or buildings, and recover costs and profit from associated energy cost savings over the life of the building. (Sec. 915)</p> <p>Expands the definition of energy savings to include a reduction in water costs; defines “energy or water conservation measure”. (Sec. 916)</p> <p>Provides for review of the Energy Savings Performance Contract program within 180 days after enactment to identify statutory, regulatory, and administrative obstacles. (Sec. 917)</p>
<b>PROCUREMENT OF ENERGY EFFICIENT PRODUCTS</b>	Directs agencies to procure, with specified exceptions, Energy Star or FEMP-designated energy efficient products. Requires agencies to select only products with premium efficiency motors (Sec. 605).	Same as S. 14. (Sec. 11005)	Requires agencies to procure only Energy Star (or FEMP designated, if not available) products when acquiring energy consuming products. Requires agencies to select only premium efficiency motors. (Sec. 914)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>CONGRESSIONAL BUILDING EFFICIENCY</b>	Directs the Architect of the Capitol to develop an energy and water conservation plan for Congressional buildings to comply with energy efficiency standards applicable to other Federal buildings, and authorizes \$2 million for FY04. (Sec. 606)	Same as S. 14, except that it provides an annual \$2 million authorization. (Sec. 11001)	Directs the Architect of the Capitol to develop and implement an energy and water conservation strategy for Congressional buildings. Includes a requirement that state-of-the-art energy efficiency technologies be used in the Capitol Visitors Center. (Sec. 919)
<b>INCREASED FEDERAL USE OF RECOVERED MINERAL COMPONENTS</b>	Amends the Solid Waste Disposal Act to provide for increased use of recovered mineral components in Federally funded projects involving procurement of cement or concrete. Requires the EPA Administrator to ensure that each Federal agency head has fully implemented existing procurement requirements. (Sec. 607)	Same as S. 14. (Sec. 11010)	Requires EPA and other Federal agencies that provide for use of cement and concrete to fully implement procurement requirements that encourage use of recycled coal combustion products in cement and concrete. Requires study on full implementation of such requirements within 30 months. (Sec. 920)
<b>UTILITY ENERGY SERVICE CONTRACTS</b>	Encourages Federal agencies to participate in utility programs to increase energy efficiency, water conservation, or management of energy demand. (Sec. 608)	No similar provision.	
<b>FEDERAL ENERGY BANK</b>			Authorizes the establishment of a fund or "bank" within the Treasury Department from which federal agencies could borrow money for investment in energy efficiency and renewable energy projects. Makes funding for the bank subject to appropriations, and authorizes such sums as may be necessary. (Sec. 918)
<b>STUDY OF ENERGY EFFICIENCY STANDARDS</b>	Requires DOE to contract with NAS to study energy efficiency standards and efficiency improvements to be submitted to Congress. (Sec. 609)	No similar provision.	



	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>VOLUNTARY COMMITMENTS TO REDUCE INDUSTRIAL ENERGY INTENSITY</b>	No similar provision.	Directs Secretary to enter into voluntary agreements with one or more persons in industrial sectors to reduce energy intensity by not less than 2.5 percent for each year from 2004 through 2014. Makes grants or technical assistance available to achieve those goals. Requires Secretary to report to Congress regarding the performance of this program by June 30, 2010 and June 30, 2014. (Sec. 11007)	Authorizes the Secretary of Energy to enter into voluntary agreements with industry sectors or individual companies to reduce the energy consumed per unit of production in the industrial process by a minimum of 2.5 percent a year over the next 10 years. (Sec. 921)
<b>MUNICIPAL ENERGY SAVINGS AND WATER USE STUDY</b>			Requires DOE to study opportunities to reduce energy and water consumption in municipal wastewater treatment and use. Requires submission of a report to Congress within 2 years. Authorizes such sums as may be necessary. (Sec. 1708)
<b>FEDERAL AGENCY PARTICIPATION IN DEMAND REDUCTION PROGRAMS</b>	No similar provision.	Encourages Federal agencies to participate in State or regional demand side reduction programs. (Sec. 11008)	
<b>ADVANCED BUILDING EFFICIENCY TESTBED</b>	No similar provision.	Requires DOE, in consultation with GSA, to establish an Advanced Building Efficiency Testbed program to promote innovation in building technologies. Authorizes \$6 million for each of the fiscal years 2004 through 2006 (Sec. 11009).	
<b>USE OF PHOTOVOLTAIC ENERGY IN PUBLIC BUILDINGS</b>	No similar provision.	Authorizes GSA to establish a photovoltaic commercialization program for the procurement and installation of solar energy systems in new and existing Federal buildings, with a goal of 20,000 systems installed by 2010. Also authorizes the establishment of an evaluation program. (Sec. 11011)	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>TELECOMMUTING STUDY</b>	No similar provision.	Requires a study on the energy conservation implications of widespread telecommuting by Federal employees. (Sec. 11012)	
<b>LOW INCOME ENERGY EFFICIENCY PILOT PROGRAM</b>	Authorizes \$20 million annually through fiscal year 2006 for grants to local governments, community development corporations, and Indian tribes for efficiency and renewable projects in low-income communities. (Sec. 611)	Same as S. 14 (Sec. 11025)	Same as S. 14. (Sec. 904)
<b>LIHEAP</b>	Authorizes \$3.4 billion for each fiscal year 2004 through 2006 for LIHEAP. (Sec. 1201*)	Same as S. 14. (Sec. 11021(a))	Increases base LIHEAP authorization to \$3.4 billion for each of fiscal years 2003-05. Increases authorization for emergency funds to \$1 billion and increases authorization for training and technical assistance to \$750,000 for each of fiscal years 2003-05. (Sec. 901(a))
<b>WEATHERIZATION ASSISTANCE</b>	Increases eligibility for assistance to 150 percent of the poverty level. Authorizes \$325 million for fiscal year 2004, \$400 million for fiscal year 2005, and \$500 million for fiscal year 2006. (Sec. 1202*)	Authorizes \$325 million for fiscal year 2004, \$400 million for fiscal year 2005, and \$500 million for fiscal year 2006 for weatherization assistance programs. Requires HHS to submit a report to congress describing how LIHEAP may more effectively reduce loss of lives from extreme temperatures. (Sec. 11021(b))	Increases authorization for weatherization assistance to \$325 million in FY 2003, increasing to \$500 million in FY 2005. (Sec. 901(b))
<b>STATE ENERGY PROGRAMS</b>	Requires DOE to invite the Governor of each state to review and/or revise the state energy conservation plan at least once every 3 years. Increases conservation goals to 25 percent, and authorizes \$100 million for each of the fiscal years 2004 and 2005 and \$125 million for fiscal year 2006. (Sec. 1203*)	Same as S. 14. (Sec. 11022)	Same as S. 14. (Sec. 902)
<b>PRODUCT STANDARDS</b>			Provides authority for the Secretary of Energy to establish energy conservation standards for commercial products. (Sec. 922)
<b>ENERGY EFFICIENT SCHOOLS</b>			Establishes a program of grants to the States for the renovation or construction of elementary and secondary school buildings to achieve improved energy efficiency. (Sec. 903)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ENERGY EFFICIENT PUBLIC BUILDINGS</b>	Authorizes grant program to assist local governments in improving energy efficiency and environmental quality of public buildings. Caps funds for administration at 30 percent. (Sec. 612).	Similar to S. 14, but authorization period is FY 2004 through 2013. (Sec. 11024)	
<b>ENERGY EFFICIENT APPLIANCE REBATES</b>	Authorizes DOE to provide funds to States with rebate programs for consumers who exchange inefficient appliances for new, energy efficient units. Authorizes \$50 million for each of fiscal years 2004 through 2008 (Sec. 613).	Same as S. 14. (Sec. 11023)	Authorizes DOE to provide funds to States who operate rebate programs for consumers who exchange inefficient appliances for new, energy efficient units.(Sec. 905)
<b>ENERGY CONSERVATION STANDARDS FOR ADDITIONAL PRODUCTS</b>	<p>Establishes definitions and test procedures for illuminated exit signs, low-voltage dry-type distribution transformers, traffic signal modules, and medium base compact fluorescent lamps.</p> <p>Requires the Secretary of Energy to prescribe test procedures for ceiling fans, vending machines, commercial refrigerators and freezers within 36 months.</p> <p>Requires Secretary to prescribe definitions and test procedures for measurement of energy consumption of battery chargers and external power supplies in standby mode and, within three years, to determine whether to issue energy conservation standards for such products; and requires the Secretary to consider in a public hearing additional covered products to receive energy conservation standards limiting standby mode energy consumption.</p> <p>Requires rulemakings to establish standards for three products and establishes standards for six others. It also provides that existing State and local standards for a product covered by this section are not preempted until the standard for such product goes into effect. (Sec. 621).</p>	<p>Similar to S. 14, but does not provide definition of “distribution transformer” or test procedures for flourescent lamps. (Sec. 11043-11044)</p> <p>Similar to S. 14, but requires a rulemaking for ceiling fans, vending machines, and certain other products in 24 months, and includes unit heaters in the rulemaking.</p> <p>Same as S. 14.</p> <p>Does not include new standards for compact fluorescent lamps and heaters, and does not include language on state preemption. (Sec. 11045)</p>	<p>Prescribes test procedures for exit signs and transformers and directs the Secretary to prescribe testing procedures for exit signs, low-voltage dry-type transformers, traffic signal modules, ceiling fans, vending machines and commercial refrigerators. (Sec. 923-924)</p> <p>Requires rulemakings to develop standards for ceiling fans, vending machines, commercial refrigerators and freezers, and unit heaters. Establishes a standard for exit signs, torchiere lamps, low-voltage dry-type transformers, and traffic signal modules.</p> <p>Establishes an expedited rulemaking for standards for energy consumed in the standby mode of battery chargers and external power supplies.</p> <p>Establishes a process for determining whether efficiency standards should be established for the standby mode of other appliances.</p> <p>Requires DOE and EPA to develop joint programs and other voluntary industry agreements to reduce standby energy use. (Sec. 928)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ENERGY LABELING</b>	Directs the Federal Trade Commission to complete a rulemaking within 2 months to determine the effectiveness of the existing labeling FTC labeling program; directs the Secretary of Energy or the FTC to prescribe labeling requirements for the products for which efficiency standards are set by this legislation. (Sec. 622)	Similar to S. 14, but does not include the provision included in the Senate version that products to which TP-1 standards apply, labeling requirements shall be based on the “Standard for the Labeling of Distribution Transformer Efficiency” proscribed by NEMA TP-3. (Sec. 11046)	Directs the Federal Trade Commission complete a rulemaking within 15 months to consider ways to improve the effectiveness of energy labels on consumer products.  Directs the Secretary of Energy to prescribe labeling requirements for the products for which efficiency standards are set by this legislation. (Sec. 925)
<b>ENERGY STAR PROGRAM</b>	Provides statutory authority for the Energy Star program at DOE and EPA; clarifies the voluntary nature of the Energy Star program; expands public comment provisions to include additions of and revisions to product categories, specifications or criteria; requires Secretary to notify affected parties of changes to Energy Star program and provide parties 12 months lead time prior to implementing such changes, unless such lead time is waived or reduced by mutual consent. (Sec. 623)	Similar to S. 14, but has a less specific requirement for public notification and does not include 12-month lead time requirement. (Sec. 11041)	Provides statutory authority for the Energy Star program at DOE and EPA. (Sec. 926)
<b>HVAC CONSUMER EDUCATION PROGRAM</b>	Authorizes DOE, in cooperation with EPA, to carry out a public education program on energy savings benefits of maintenance of air conditioning, heating and ventilation systems. (Sec. 624)	Similar to S. 14, but does not include cost-share requirement. (Sec. 11042)	Authorizes a public education program on energy savings benefits of maintenance of air conditioning, heating and ventilation systems. (Sec. 929)
<b>A/C EFFICIENCY STANDARD</b>	No similar provision.	No similar provision.	Requires DOE to revise existing standards for central air conditioners and heat pumps within 60 days of enactment. (Sec. 927)
<b>ENERGY-EFFICIENT, AFFORDABLE HOUSING</b>	Requires activities that provide energy efficient, affordable housing and residential energy conservation measures under the HUD Demonstration Act. (Sec. 631)	Same as S. 14. (Sec. 70001)	Requires activities that provide energy efficient, affordable housing and residential energy conservation measures under the HUD Demonstration Act. (Sec. 931)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>INCREASE OF CDBG PUBLIC SERVICES CAP</b>	Increases the amount of Community Development Block Grant assistance for providing public services involving energy conservation or efficiency by 10 percent. (Sec. 632)	Same as S. 14. (Sec. 70002)	Increases the amount of Community Development assistance for providing public services involving energy conservation or efficiency by 10 percent. (Sec. 932)
<b>FHA MORTGAGE INSURANCE INCENTIVES</b>	Provides for additional 10 percent increase in property value covered by FHA mortgage insurance when a solar energy system is installed. (Sec. 633)	Same as S. 14. (Sec. 70003)	Provides for additional 10% increase in property value covered by FHA mortgage insurance when a solar energy system is installed. (Sec. 933)
<b>PUBLIC HOUSING CAPITAL FUND</b>	Allows the Public Housing Capital Fund to include use for certain improvements for energy efficiency, using third party contracts similar to Energy Savings Performance Contracts (ESPCs). (Sec. 634)	Same as S. 14. (Sec. 70004)	Modifies Public Housing Capital Fund to include certain improvements for energy efficiency. (Sec. 934)
<b>GRANTS FOR ENERGY-CONSERVING IMPROVEMENTS FOR ASSISTED HOUSING</b>	Allows grants for multifamily housing projects to be used for improved energy efficiency. (Sec. 635)	Same as S. 14. (Sec. 70005)	Provides that grants for multifamily housing projects may be used for improved energy efficiency. (Sec. 935)
<b>NORTH AMERICAN DEVELOPMENT BANK</b>	Amends NAFTA Implementation Act to encourage U.S. Board members to encourage the Bank to finance projects related to clean and efficient energy, including energy conservation. (Sec. 636)	Same as S. 14. (Sec. 70006)	Amends NAFTA Implementation Act to encourage U.S. Board members to encourage the Bank to finance projects related to clean and efficient energy, including energy conservation. (Sec. 936)
<b>CAPITAL FUND</b>			Extends use of low-income public housing capital funds to energy conservation and efficiency measures. (Sec. 937)
<b>ENERGY-EFFICIENT APPLIANCES</b>	Requires public housing agencies to purchase Energy Star or FEMP-designated products where cost-effective. (Sec. 637)	Same as S. 14. (Sec. 70007)	Requires public housing agencies to purchase Energy Star products where cost-effective. (Sec. 938)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ENERGY EFFICIENCY STANDARDS</b>	Requires HUD to issue new and updated efficiency standards used in Cranston-Gonzalez low-income housing programs to current best codes and practices by September 30, 2003. (Sec. 638)	Similar to S. 14, but requires new standards by September 30, 2004 (Sec. 70008)	Updates efficiency standards used in Cranston-Gonzalez low-income housing programs to current best codes and practices. (Sec. 939)
<b>ENERGY STRATEGY FOR HUD</b>	Requires HUD to develop and implement an integrated energy strategy for public and assisted housing. Requires report to Congress and updates of report every two years. (Sec. 639)	Same as S. 14. (Sec. 70009)	Requires HUD to develop and implement an integrated energy strategy for public and assisted housing. Creates an energy management office at HUD to administer such strategy. (Sec. 940)
<b>STUDY OF ENERGY EFFICIENCY STANDARDS</b>	No similar provision.	Directs Secretary to contract with NAS for a study to determine how best to measure efficiency improvements to meet goals of energy efficiency standards. (Sec. 11047)	Requires DOE to contract with the National Academy of Sciences to study differences in efficiency standards measured at site of energy consumption, or at source of energy production, with a report to Congress within 1 year. (Sec. 930)
<b>REVIEW OF REGULATORY BARRIERS</b>			Requires each federal agency to report to Congress within 18 months and at least every five years thereafter on necessary changes to regulations to remove barriers to market entry for energy-efficient technologies and processes. (Sec. 1701)

**TRANSPORTATION FUELS**

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>USE OF ALTERNATIVE FUELS BY DUAL-FUELED VEHICLES</b>	Requires alternative-fueled vehicles acquired by Federal agencies to be operated on alternative fuel unless the Secretary determines that the alternative fuel is not reasonably available or unreasonably more expensive compared to gasoline. (Sec. 701)	No similar provision.	
<b>FUEL USE CREDITS</b>	Amends the Energy Policy Act of 1992 (EPAAct) to allow Federal fleets or covered persons to earn credits towards compliance with alternative fuel vehicle purchase mandates by using alternative fuels in medium- and heavy-duty vehicles. Awards one credit for each volume used of alternative fuel equivalent in energy content to 450 gallons of biodiesel or greater amount if determined by rule. Provides that such credits are bankable from one year to the next, and tradeable. Removes the 50 percent cap on use of fuel credits in any one year. (Sec. 702)	No similar provision.	Allows biodiesel fuel use credits to be counted as alternative fuel fleet credits in model years 2002 through 2005 for Federal vehicle fleets, and from date of enactment and thereafter for private vehicle fleets. Requires DOE to submit a report on extension beyond 2005 for Federal fleets within one year. (Sec. 817)
<b>NEIGHBORHOOD ELECTRIC VEHICLES</b>	Includes zero-emission, low-speed electric vehicles in the definition of alternative fuel vehicles under EPAAct, provided that such vehicles have a top speed not greater than 25 miles per hour. (Sec. 703)	No similar provision.	Includes zero-emission, low-speed electric vehicles in the definition of alternative fuel vehicles under the Energy Policy Act of 1992. (Sec. 818)
<b>CREDITS FOR MEDIUM AND HEAVY DUTY VEHICLES</b>	Amends EPAAct to allow Federal fleets or covered persons to earn multiple credits towards compliance with alternative fuel vehicle purchase mandates through purchase of medium-duty vehicles (greater than 8,500 lbs. gross vehicle weight, 2 credits) or heavy-duty vehicles (greater than 14,000 lbs. gross vehicle weight, 3 credits). (Sec. 704)	Authorizes DOE to allocate credits for a substantial contribution toward the acquisition and use of alternative fueled vehicles to persons or fleets not otherwise covered under this title. (Sec. 15011)	Allows the Secretary of Energy to award credits toward alternative fuel vehicle mandates for hybrid vehicles, investment in use of alternative vehicles in non-covered fleets, and investment in alternative fuel infrastructure. (Sec. 819)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ALTERNATIVE FUEL INFRASTRUCTURE</b>	Amends EPAct to allow Federal fleets or covered persons to earn credits towards compliance with alternative fuel vehicle purchase mandates through investment in alternative fuel infrastructure (fueling stations, distribution lines, etc.). (Sec. 705)	Similar to S. 14, but includes training programs and educational materials in the definition of “qualifying infrastructure”. (Sec. 15012)	
<b>INCREMENTAL COST ALLOCATION</b>	Requires the GSA to allocate the incremental cost of alternative fueled vehicles compared to comparable gasoline vehicles across the entire fleet of motor vehicles distributed by the GSA, instead of on a vehicle-by-vehicle basis. (Sec. 706)	Same as S. 14. (Sec. 15014)	
<b>REVIEW OF ALTERNATIVE FUEL PROGRAMS</b>	Requires the Secretary of Energy to conduct a study that determines the impact of alternative fuel vehicle programs in EPAct on development of technologies for use of alternative fuels, availability of fuel, and cost of alternative fueled vehicles. Requires a report within one year on findings and recommendations for changes to these programs. (Sec. 707)	Similar to S. 14, but includes a definitions section and sets forth slightly different topics for the study. (Sec. 15013)	
<b>HIGH OCCUPANCY VEHICLE EXCEPTION</b>	Allows State highway agencies to establish procedures for allowing alternative fuel vehicles to utilize High Occupancy Vehicle lanes on highways regardless of number of passengers carried. (Sec. 708)	No similar provision.	Allows State highway agencies to establish procedures for allowing alternative fuel vehicles to utilize High Occupancy Vehicle (HOV) lanes on highways regardless of number of passengers carried. (Sec. 812)
<b>ALTERNATIVE COMPLIANCE AND FLEXIBILITY</b>	Provides any person covered by section 501 and any State subject to the requirements of section 507(o) the ability to opt out of EPAct. Provides EPAct credits for hybrid vehicles, dedicated alternative fuel vehicles and infrastructure. Amends EPAct to allow the blending of liquids from natural gas wells with diesel fuel to manufacture an alternative fuel. (Sec. 709)	No similar provision.	



	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>EMISSION REDUCTIONS TRADING AND CREDITING</b>	No similar provision.	Requires EPA to submit to Congress, within 180 days, a report on EPA's experience with trading mobile source emission reduction credits for use by stationary source operators for offsetting requirements. (Sec. 15042)	
<b>MEASURES TO CONSERVE PETROLEUM</b>	Requires the President to submit an annual report detailing progress made toward reducing dependence on petroleum imports by 2013. Directs the President to develop a plan to reduce total petroleum demand by 1 million barrels per day by 2013. (Sec. 641*)	No similar provision.	No similar provision.
<b>DUAL FUELED AUTOMOBILES</b>	Extends for an additional four years the manufacturer incentives and maximum fuel economy increase allowable under the CAFE program for the manufacture and sale of dual fueled automobiles. (Sec. 712)	No similar provision.	Extends for an additional four years the maximum fuel economy increase allowable for manufacture of dual fueled automobiles. (Sec. 804)
<b>PICKUP TRUCKS</b>	No similar provision.		Sets an upper limit on the minimum fuel economy requirement for pickup trucks at 20.7 miles per gallon. Defines "pickup truck". (Sec. 811)
<b>FEDERAL FLEET VEHICLE PURCHASE REQUIREMENTS</b>	Requires Federal agencies, in model year 2005 and thereafter, to purchase hybrid light-duty trucks for fleets not covered under existing law. Provides waiver authority for Federal agencies in certain circumstances. (Sec. 733*)  Requires only hybrid vehicles to be purchased for agency fleets of light-duty trucks if the fleet is not covered by section 303 of EPAct. Provides waiver authority for Federal agencies in certain circumstances and exempts the Department of Defense. (Sec. 734*).		Similar to S. 14, but waiver authority varies. (Sec. 805(a))  Increases proportion of alternative fueled or hybrid light-duty trucks in covered Federal fleets by an additional 5% in FY2004 and FY2005, and by an additional 10% in FY2006 and thereafter. (Sec. 805)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>FEDERAL FLEET FUEL ECONOMY</b>	Requires Federal agencies to increase fuel economy of new Federal fleet passenger cars and light trucks by at least 3 miles per gallon by 2005 compared to year 1999 acquisitions. (Sec. 713)	No similar provision.	Requires Federal agencies to increase fuel economy of new Federal fleet passenger cars and light trucks by at least 1 mile per gallon by 2003 and 3 miles per gallon by 2005 compared to year 1999 acquisitions. (Sec. 821)
<b>RAILROAD EFFICIENCY</b>	Requires cost-shared public-private partnership to improve fuel economy, reduce emissions and lower costs of operation of railroad locomotives. Authorizes \$25 million in fiscal year 2004, \$35 million in fiscal year 2005, and \$50 million in fiscal year 2006. (Sec. 714)	Same as S. 14, but only authorizes \$30 million for fiscal year 2005 and \$35 million for fiscal year 2006. (Sec. 15041)	Establishes a public-private research partnership to improve railroad locomotive technologies by increasing fuel economy, reducing emissions, improving safety, and lowering costs. Authorizes \$60 million in FY03 and \$70 million in FY04. (Sec. 1214)
<b>REDUCTION OF ENGINE IDLING IN HEAVY-DUTY VEHICLES</b>	Requires DOE, in consultation with DOT and EPA, to study potential technologies to reduce idling of engines in heavy-duty vehicles and, upon completion of such study, publish a list of certified technologies in the Federal Register.  Increases vehicle weight limits for heavy-duty vehicles to allow for installation of such technologies provided they are less than 400 pounds additional weight. (Sec. 715)	Requires EPA to analyze potential fuel savings from the use of idle-reduction technologies; determine if its models accurately reflect the emissions from long-duration idling of heavy duty trucks; and review emissions reductions credits for idle reduction technologies and consider the option of subjecting those credits to a trading system. Requires DOE to assess where vehicles stop for long duration idling.  Similar to S. 14. (Sec. 15043)	Requires DOE and DOT to study potential fuel economy savings resulting from use of idling reduction systems in heavy-duty vehicles. (Sec. 822)
<b>ADVANCED VEHICLES</b>	Directs DOE to accelerate R&D on rechargeable energy storage systems and other technologies for use in hybrid vehicles. Authorized \$50 million for each of fiscal years 2004 through 2006. (Sec. 731*)	Directs the Secretary to establish a competitive grant program through the Clean Cities Program. Grants may be used to purchase alternative fuel, hybrid, ultra-low sulfur diesel, or fuel cell vehicles; to fund infrastructure development; or for operation and maintenance of vehicles, infrastructure, and equipment purchased with the grant funds. Grants are limited to five years, \$20 million, and a 50 percent cost-share. (Sec. 15021-15024)	Requires DOE to expand its research and development programs on advanced vehicle technologies, including fuel cells and hybrid vehicles. Authorizes \$225 million for fiscal year 2003. (Sec. 807)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>AVIATION FUEL STUDY</b>	No similar provision.	Requires the FAA and EPA to identify the impacts of aircraft emissions and recommend ways to improve aviation fuel efficiency and reduce emissions. (Sec. 15044)	
<b>DIESEL FUELED VEHICLES</b>	Requires DOE to accelerate its R&D programs for improvement of diesel-fueled motor vehicles, with the goal of complying, by 2010, with Tier 2 emissions standards and heavy-duty emissions standards. Program should also focus on post-2010 technologies.  Authorizes \$75 million for each of fiscal years 2004 through 2006. (Sec. 732*)	Requires DOE to develop and demonstrate diesel technology meeting tier 2 emission standards not later than 2010. (Sec. 15045)	Requires DOE to accelerate its research and development programs directed towards the improvement of diesel fueled motor vehicles, with a goal of compliance with Tier 2 emissions standards not later than 2010. (Sec. 808)  No similar provision.
<b>ALTERNATIVE FUELED VEHICLE FUELING REQUIREMENT</b>	No similar provision.	Authorizes DOE to waive alternative fuel requirements if such fuel is not reasonable available or unreasonably more expensive. (Sec. 15046)	Requires "dual-fueled" vehicles operated by Federal fleets to be operated solely on alternative fuels not later than 2009. Allows the Secretary of Transportation to waive such requirement if impractical, but only to the extent that such fleets use alternative fuels for 50% of fuel use by 2009 and 75% by 2011. (Sec. 806)
<b>TOTAL INTEGRATED THERMAL SYSTEMS</b>	No similar provision.	Requires DOE to conduct a study on the benefits of total integrated thermal systems. (Sec. 15047)	
<b>OIL BYPASS FILTRATION</b>	No similar provision.	Requires DOE and EPA study the benefits of oil bypass filtration technology. (Sec. 15048)	
<b>NATURAL GAS CONDENSATE STUDY</b>	No similar provision.	Requires DOE in consultation with EPA to conduct a study considering fuels derived from natural gas condensate and the blending of such condensates. (Sec. 15049)	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>PETROLEUM REDUCTION STUDY</b>	No similar provision.	Directs GSA and DOE to study the merits of establishing performance measures for the reduction of petroleum consumption of Federal fleets. (Sec. 15050)	
<b>CONSERVE BY BICYCLING</b>	Creates a program in the DOT to establish pilot projects to encourage the use of bicycles. Directs Secretary to contract for a NAS study on the feasibility of converting motor vehicle trips to bike trips. (Sec. 614*)	Same as S. 14. (Sec. 15051)	Authorizes \$5.5 million for up to 10 pilot projects to encourage conversion of automobile trips into bicycle trips. (Sec. 823)
<b>FEDERAL PROCUREMENT STUDY</b>			Requires the GSA Administrator to report to Congress on efforts by each Federal agency to implement procurement policies in Executive Orders relating to recycled products and transportation efficiency. (Sec. 840)
<b>CLEAN SCHOOL BUSES</b>	No similar provision.  No similar provision.	Creates a pilot program for demonstration grants for clean school bus technology. Funds can be used to purchase alternative fuel or ultra-low sulfur diesel buses, or to develop a portion of necessary infrastructure. Requires Secretary to spend not less than 20 percent and not more than 25 percent of total grant funds on acquisition of school buses. Encourages schools to develop anti-idling policies. (Sec. 23001)  Directs Secretary to enter into cooperative agreements for the development and demonstration of fuel-cell powered school buses. Sets forth cost-share and funding limitations. (Sec. 23002)  Requires EPA and DOE to establish a competitive grant pilot program for the commercial application of retrofit technologies for diesel school buses. (Sec. 23003).	Establishes a DOE, DOT pilot program to make competitive grants to demonstrate the commercial application of alternative-fuel and ultra-low sulfur diesel school buses that meet California emissions standards. Grants under this program can supply up to 85% of the cost of each bus, and up to 15% of the cost of necessary alternative fuel infrastructure. (Sec. 814)  Authorizes a pilot program to develop and demonstrate fuel cell buses. (Sec. 815)  Authorizes \$50 million in FY 2003 for these programs, increasing to \$80 million in FY 2006. (Sec. 816)  Requires DOT to study replacing existing diesel fueled buses in metropolitan areas and school systems with similar vehicles that use alternative fuels. (Sec. 810)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>AUTOMOBILE FUEL ECONOMY STANDARDS</b>	Requires the Secretary of Transportation to consider effects on motor vehicle and passenger safety, and effects on levels of U.S. employment when setting fuel economy standards. Clarifies DOT authority to amend fuel economy standards for passenger cars. Requires an environmental assessment under NEPA to be conducted for any changes in fuel economy standards. Authorizes \$5 million for each of fiscal years 2004 through 2008. (Sec. 711)	<p>Authorizes an additional \$15 million to NHTSA to enforce fuel economy standards. (Sec. 18001).</p> <p>Requires NHTSA to study the feasibility of reducing by model year 2012, by a significant percentage, automobile fuel use (Sec. 18002).</p>	

**CAFE**

	<b>S. 14 (<i>Bond-Levin amendment</i>)</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>PROVISION NOT TO TAKE EFFECT</b>	Provides that Sec. 711 will not take effect. (Sec. 716)		
<b>REVISED CONSIDERATIONS</b>	Sets forth 13 criteria for the DOT to consider when deciding maximum feasible average fuel economy, including impacts on the economy, environment, safety, and jobs. (Sec. 717)		Same as S. 14. (Sec. 803)
<b>INCREASED FUEL ECONOMY STANDARDS</b>	<p>Directs DOT to issue new standards for average fuel economy for non-passenger automobiles in model years following the 2007 model year. Regulations must be issued by April 1, 2006. Also requires DOT to issue new fuel economy standards for passenger automobiles not later than 2.5 years after enactment. (Sec. 718(a))</p> <p>Provides that the increases will be phased in over 15 years. (Sec. 718(b))</p> <p>Clarifies Secretary's authority to amend the passenger automobile standard, and provides for Congressional review of amendments to the standard. (Sec. 718(c)*)</p> <p>Requires an environmental assessment when increasing standards for non-passenger or passenger automobiles. (Sec. 718(d))</p> <p>Authorizes \$5 million for each of fiscal years 2004 through 2008. (Sec. 718(e))</p>		Requires the Secretary of Transportation to issue multi-year regulations to increase average fuel-economy standards for automobiles and light trucks. Sets deadlines for issuance of new regulations, which are to be phased in over 15 model years. (Sec. 801)
<b>EXPEDITED PROCEDURES</b>	Requires Congress to enact legislation under expedited procedures to revise fuel economy standards if the deadlines for issuance of new regulations are not met. (Sec. 719)		Same as S. 14. (Sec. 802)

**RENEWABLE FUELS STANDARD**

	<b>S. 14 (<i>Frist-Daschle amend.</i>)</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>DEFINITIONS</b>	Establishes definitions for renewable fuels program. (Sec. 5_1(a))	Similar to S. 14, but includes “blending components derived from renewable fuel” in the definition of renewable fuels. (Sec. 17101(a))	Same as S. 14. (Sec. 820(a))
<b>RENEWABLE FUEL PROGRAM</b>	<p>Directs EPA to promulgate regulations ensuring that applicable volumes of renewable fuel are sold or introduced into commerce in the contiguous United States annually.</p> <p>Regulations must apply to refiners, blenders, distributors, and importers.</p> <p>If regulations are not issued, the applicable percentage for 2005 is set at 1.8 percent.</p> <p>Sets forth a phase-in for renewable fuel volumes over 8 years, ending at 5 billion gallons.</p> <p>Requires EIA, through 2011, to provide an annual estimate of volumes of gasoline sold or introduced into commerce for the coming year. Based on these estimates, EPA must publish regulations to ensure renewable fuel obligations for refiners, blenders, and importers are met.</p> <p>States that 1 gallon of ethanol is equal to 1.5 gallons of renewable fuel, unless derived from agricultural residue, in which case it is equal to 2.5 gallons.</p> <p>Creates a credit program for refiners, blenders, or importers who exceed minimum obligations.</p>	<p>Similar to S. 14, but applies regulations to gasoline “sold or dispensed to consumers in the contiguous United States”</p> <p>Similar to S. 14, but does not include distributors.</p> <p>Similar to S. 14, but percentage is set at 1.62</p> <p>Similar to S. 14, but phases in over 11 years at different increments.</p> <p>Similar to S. 14, but authorization not limited.</p> <p>States that 1 gallon of ethanol is equal to 1.5 gallons of renewable fuel.</p> <p>Same as S. 14. (Sec. 17101(a))</p>	<p>Similar to S. 14, but applies regulations to gasoline “sold or dispensed to consumers in the United States”.</p> <p>Same as House bill.</p> <p>Same as House bill.</p> <p>Similar to S. 14, but phases in over 9 years at varying increments.</p> <p>Similar to S. 14, but applies regulations to distributors.</p> <p>Same as House bill</p> <p>Same as S. 14. (Sec. 820(a))</p>

	<b>S. 14 (<i>Frist-Daschle amend.</i>)</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>SEASONAL VARIATIONS</b>	Requires EIA, for calendar years 2005 through 2012, to conduct an annual study on seasonal variations in renewable fuel use. If the EPA determines, based on the study, that seasonal variations exist and will continue, the Administrator must promulgate regulations ensuring that at least 35 percent of the annual renewable fuel obligation is met in each of 2 specified periods.	Similar to S. 14, but extends the study to 2015 and requires EPA to also determine that imposing a 35 percent seasonal use requirement will not limit the attainment of air quality standards or significantly increase gasoline prices. (Sec. 17101(a))	Same as S. 14. (Sec. 820(a))
<b>WAIVERS</b>	Authorizes EPA to waive renewable fuels mandate for one or more States if the Administrator determines that implementing the requirements would severely harm the economy or the environment, or that there is inadequate domestic supply or distribution capacity.  Petitions for waivers must be acted on within 90 days of receipt and terminate after 1 year (but may be renewed).	Similar to S. 14, but requires a determination of a “significant and meaningful adverse impact” on the economy or environment, and allows a waiver upon a determination that the mandate limits attainment of air quality standards.  Similar to S. 14, but requires EPA to publish an explanatory notice if it does not act within 90 days. (Sec. 17101(a))	Same as S. 14. (Sec. 820(a))
<b>ALTERNATIVE PHASE-IN</b>	Requires DOE to conduct a study assessing whether implementing the renewable fuel mandate will have a significant adverse impact on consumers in 2005, and to make recommendations to mitigate any impact. Authorizes EPA, based on those recommendations to waive the mandate, in whole or in part, for 2005.  No similar provision.	Same as S. 14.  Directs DOE to evaluate, prior to any year in which the renewable fuel obligation increases, whether the mandate should remain in effect, taking into consideration renewable fuel supplies; impact on prices for gas, food, or heating oil; interference with gasoline supply; and effects on air quality standards. Authorizes the Secretary to waive the mandate after making certain determinations. (Sec. 17101(a))	Same as S. 14. (Sec. 820(a))  No similar provision.



	<b>S. 14 (<i>Frist-Daschle amend.</i>)</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>SMALL REFINERIES</b>	Exempts small refineries from the renewable fuels mandate until 2011. Requires DOE to assess whether the mandate places a disproportionate economic hardship on small refiners, and requires EPA to waive the mandate for an additional 2 years if such a hardship is discovered. Small refineries may petition the EPA for additional extensions for economic hardship. If a small refinery chooses not to accept the waiver, it will receive credits for production in the following years.	Similar to S. 14, but provides for a 5-year exemption. (Sec. 17101(a))	Similar to S. 14, but provides an exemption until 2008. (Sec. 820(a))
<b>MARKET CONCENTRATION ANALYSIS</b>	Requires FTC to conduct an annual market concentration analysis to determine if there is sufficient competition to avoid anti-competitive behavior.	No similar provision.	No similar provision.
<b>SAFE HARBOR</b>	Provides limits on liability for renewable fuels under certain conditions. Ethers are not covered by this limitation.	Provides limits on liability for renewable fuels and MTBE, under certain conditions. Liability other than for a defect in design or manufacture is not affected. (Sec. 17102)	Same as S. 14. (Sec. 820(e))
<b>PENALTIES AND ENFORCEMENT</b>	Subjects violations of the renewable fuels mandate to a \$25,000 civil penalty, and provides that violations of standards based on multi-day averaging periods constitute separate violations for each day in the averaging period. Grants Federal district courts jurisdiction. (Sec. 5_1(b))	Same as S. 14. (Sec. 17101(b))	Same as S. 14. (Sec. 820(b))
<b>REID VAPOR PRESSURE</b>	Allows Governors to apply the more stringent Reid Vapor Pressure requirement in the Clean Air Act to ethanol and blended fuels upon petition to EPA. (Sec. 5_1(c))	No similar provision.	Same as S. 14 (Sec. 820(c))
<b>MARKET SURVEY</b>	Requires an annual study on market shares of conventional gasoline containing ethanol or renewable fuels and reformulated gasoline containing ethanol or renewable fuels. Requires survey to protect confidentiality. (Sec. 5_2(b))	Similar to S. 14, but lacks provision on confidentiality and sets forth provisions on calculating market shares. (Sec. 17101(c))	Similar to S. 14, but lacks provision on confidentiality. (Sec. 820(d))

	<b>S. 14 (<i>Frist-Daschle amend.</i>)</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>FEDERAL FLEET PURCHASE REQUIREMENT</b>	No similar provision.	No similar provision.	Requires Federal agencies to purchase fuel containing at least 10 percent blended ethanol for use in agency-operated vehicles that use gasoline. Requires Federal agencies to use diesel fuel blended with biodiesel (2% blend in 5 years; 20% blend in 10 years) in fleet vehicles operated by the agency where cost-effective and reasonably available. (Sec. 820A)
<b>MUNICIPAL SOLID WASTE LOAN GUARANTEES</b>	Requires Secretary to create a loan guarantee program for construction of facilities to convert municipal solid waste into fuel ethanol and other commercial byproducts. Requires 20 percent of the loan to be backed. Guarantees can only be issued for 10 years, and all loans must mature in 20 years. (Sec. 5_2(c)).	Same as S. 14. (Sec. 17108)	Same as S. 14. (Sec. 820B)
<b>BIOCONVERSION RESOURCE CENTER</b>	Authorizes \$12 million for a resource center, located at the University of Mississippi and the University of Oklahoma, to develop bioconversion technology for ethanol production. (Sec. 5_2(d))	No similar provision.	No similar provision.
<b>R&amp;D GRANTS</b>	Authorizes \$125 million grant program for renewable fuel production research and development in RFG States with low rates of ethanol production. (Sec. 5_2(e))	No similar provision.	No similar provision.
<b>ETHANOL CONVERSION ASSISTANCE</b>	Authorizes Secretary to provide grant assistance to build production facilities for ethanol derived from agricultural residues or municipal solid waste. (Sec. 5_2(f))	No similar provision.	No similar provision.
<b>CONSUMPTION SURVEY</b>	Requires a survey on monthly renewable fuels consumption, dating back to 1998. (Sec. 5_3)	Similar to S. 14, but requires different criteria and data dating back 5 years. (Sec. 17106)	Same as S. 14. (Sec. 813)

	<b>S. 14 (<i>Frist-Daschle amend.</i>)</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>LEAKING UNDERGROUND STORAGE TANKS</b>	Authorizes the EPA and States to use up to \$200 million from the LUST trust fund for MTBE clean-up, whether or not it is held in an underground storage tank. Authorizes an additional \$200 million from the LUST trust fund for conducting inspections, issuing orders, and actions under the Solid Waste Disposal Act for MTBE contamination of groundwater.	Authorizes the transfer of \$850 million from the LUST trust fund to the EPA for assessment, monitoring and clean up of underground storage tanks containing fuel oxygenates. (Sec. 17201).	Similar to S. 14, but includes authorization for bedrock and soil remediation programs. (Sec. 832)
<b>MTBE</b>	Bans the use of MTBE within 4 years after date of enactment of this subtitle. Provides that States may act earlier if they wish, and does not preempt preexisting State decisions. Authorizes \$250 million for each of fiscal years 2004-2007 for MTBE merchant producer assistance. (Sec. 5_3)	Provides grant assistance for three years to assist merchant producers of MTBE in the transition to production of other fuel additives. (Sec. 17103)	Similar to S. 14, but only authorizes transition assistance for 3 years. (Sec. 833)
<b>ELIMINATION OF OXYGENATE REQUIREMENT</b>	Eliminates the 2% oxygenate requirement for reformulated gasoline. Provides additional authority to the Administrator to ensure that fuel performance standards and toxic emissions limits under the Clean Air Act are met. Requires the establishment of a credit trading program for toxics. Provides EPA with authority to promulgate regulations on hazardous air pollutants from motor vehicles and motor vehicle fuels. Requires the Administrator to consolidate certain reformulated gas regulations. Authorizes the commingling of reformulated gasoline containing ethanol under certain circumstances. (Sec. 5_4)	Similar to S. 14, but does not authorize exemptions from toxic air standards for States with 209(b) waivers; grants refiners and importers a longer time frame for compliance with revised standards; and does not include language on commingling. (Sec. 17104)	Similar to S. 14, with the following exceptions: <ul style="list-style-type: none"> <li>– grants refiners and importers a longer time frame for compliance with revised toxic air standards</li> <li>– does not allow for adjustment of standards</li> <li>– does not include provisions on commingling</li> <li>– sets a 30-day limit on the length of time EPA can consider a petition from a State on opting out of the RFG program. (Sec. 834)</li> </ul>
<b>HEALTH AND ENVIRONMENTAL IMPACTS OF FUEL ADDITIVES</b>	Requires EPA to conduct a study of the public health, air quality, and water effects of MTBE substitutes, including ethanol and ethyl tertiary butyl ether (ETBE), and submit a report to Congress within two years.(Sec. 5_5)	No similar provision.	Similar to S. 14, but does not specifically require an analysis of public health effects on children, pregnant women, minority or low-income communities, and other sensitive populations. (Sec. 835)

	<b>S. 14 (<i>Frist-Daschle amend.</i>)</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ANALYSES OF FUEL CHANGES</b>	Requires EPA to conduct a study of the effects of motor fuel changes under this subtitle and report to Congress within five years, after a reasonable time for public comment, and to update emissions models to reflect the impact of these changes for fleet vehicles in 2006. (Sec. 5_6)	Similar to S. 14, but emissions model must reflect impacts in 2005. (Sec. 17105)	Same as House bill. (Sec. 836)
<b>RFG OPT-IN AREAS</b>	Provides explicit authority to States to allow non-classified areas (i.e. those without severe air quality problems) to opt-in to the reformulated gasoline (RFG) program under the Clean Air Act. Allows EPA to suspend RFG requirements in opt-in areas provided insufficient domestic capacity exists to produce RFG for that area. (Sec. 5_7)	No similar provision.	Same as S. 14. (Sec. 837)
<b>FEDERAL ENFORCEMENT OF STATE FUEL CONTROLS</b>	Allows EPA to enforce State controls or prohibitions on fuels at the request of the State. (Sec. 5_8)	No similar provision.	Same as S. 14. (Sec. 838)
<b>FUEL SYSTEM REQUIREMENTS HARMONIZATION STUDY</b>	Directs EPA and DOE to conduct a joint study on Federal, State and local regulations on motor vehicle fuels and make recommendations by June 1, 2007, on actions to improve air quality, reduce costs to consumers and producers, and increase supply liquidity. (Sec. 5_9)	Similar to S. 14, with the following exceptions: – does not specifically require an analysis of public health effects on children, pregnant women, minority or low-income communities, and other sensitive populations – requires the study of the extent to which improvements in air quality and changes in price can be projected to result from various fuel requirements and programs – requires recommendations by Dec. 31, 2006 and has a more limited consultation requirement (Sec. 17107)	Similar to S. 14, with the following exceptions: – does not specifically require an analysis of public health effects on children, pregnant women, minority or low-income communities, and other sensitive populations – requires recommendations by June 1, 2006 and has a more limited consultation requirement (Sec. 839)
<b>BOUTIQUE FUELS</b>	No similar provision.	Grants preference to state implementation plans that use either Federal clean burning fuel or low Reid Vapor Pressure gasoline. (Sec. 17107A)	No similar provision.

**HYDROGEN**

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>MATSUNAGA ACT AMENDMENT</b>	Provides a complete substitute for the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990. Authorizes basic research and development activities related to hydrogen energy, fuel cells and related infrastructure. (Sec. 802)	No similar provision.	Reauthorizes Matsunaga Hydrogen Act through 2006 by providing \$90 million in authorization for fiscal year 2002, increasing to \$120 million authorized for fiscal year 2006. Makes changes to purpose, cost-sharing requirements, membership of technical advisory board, and function of underlying Act. Includes new provisions for integrating hydrogen research programs with fuel cell research programs. (Sec. 1223)
<b>HYDROGEN TRANSPORTATION AND FUEL INITIATIVE</b>	Requires the Secretary to create a program for advanced hydrogen-powered vehicle technologies, and related activities needed to enable rapid and coordinated introduction of hydrogen-powered vehicles and associated infrastructure into commerce. Requires activities under these programs to be coordinated with basic research activities conducted under the Matsunaga Act.  Establishes authorization levels for fiscal years 2004 to 2008. (Sec. 803)  Requires triennial report on the effect of hydrogen use on natural gas demand. (Sec. 803(h)*)	Directs the Secretary to conduct a program with the private sector to address hydrogen production, delivery, and storage, as well as fuel cell technology. Sets forth goals for vehicles, energy and infrastructure, and fuel cells, with benchmarks in 2015 and 2020. Authorizes demonstration programs, private sector and university partnerships, and cost-share limitations. (Sec. 60003)  Establishes authorization levels for fiscal years 2004 to 2008. (Sec. 60008)	
<b>INTERAGENCY TASK FORCE AND COORDINATION PLAN</b>	Requires the Secretary of Energy to establish an interagency task force to coordinate Federal activities in the area of hydrogen energy, fuel cells, and related technologies.  Task force must submit to Congress a plan for coordination of all Federal hydrogen and fuel cell activities within one year of establishment. (Sec. 804)	Similar to S. 14, but does not specifically require the Department of State to be a member, and allows the Secretary to serve as chair of the task force. Outlines planning goals and activities. (Sec. 60004)  Secretary must submit to Congress a coordinated plan for all DOE hydrogen and fuel cell programs. (Sec. 60002)	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ADVISORY COMMITTEE</b>	No similar provision.	Establishes the Hydrogen Technical and Fuel Cell Advisory Committee to advise DOE on the implementation and activities of hydrogen fuel cell related programs. Requires Secretary to submit to Congress a biennial report describing the Committee's recommendations. (Sec. 60005)	
<b>REVIEW BY THE NATIONAL ACADEMIES</b>	Requires the National Academies to review Federal hydrogen energy programs and activities within two years of enactment, and every four years thereafter. (Sec. 805)	Requires the Secretary to have a competitively selected non-governmental entity, such as the National Academies, review the coordinated plan and then review hydrogen and fuel cell related programs four years after the date of enactment. (Sec. 60006)	
<b>MISCELLANEOUS PROVISIONS</b>	No similar provision.	Authorizes the Secretary of Energy to represent U.S. interests before other governmental, private sector and foreign entities. (Sec. 60007)	
<b>HYDROGEN VEHICLE DEMONSTRATION PROGRAM</b>	Requires the Secretary to establish a demonstration and commercial application program for hydrogen-powered vehicles and associated hydrogen fueling infrastructure in a variety of applications, including fleets of light- and heavy-duty vehicles, transit buses, refueling corridors, and other similar projects. Authorizes \$50 million for each of fiscal years 2006 through 2010. (Sec. 812)	Directs the Secretary, along with the Secretary of Transportation, to establish a \$10 million fuel cell bus technology demonstration program to address issues related to heavy-duty vehicle fuel cell usage. (Sec. 15031-15034)	Requires DOE and DOD to jointly carry out a program to demonstrate fuel cell technologies developed in the PNGV and Freedom CAR programs and DOD R&D programs. Requires Federal cost-share of at least 50%. (Sec. 809)
<b>STATIONARY FUEL CELL DEMONSTRATION PROGRAM</b>	Requires the Secretary to establish a demonstration and commercial application program for stationary hydrogen fuel cells, including applications in residential and commercial buildings, portable applications, small form and micro fuel cells, and for distributed generation from renewable energy and similar projects. (Sec. 813)	No similar provision.	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>HYDROGEN DEMONSTRATION PROGRAMS IN NATIONAL PARKS</b>	Requires the Secretary of the Interior and the Secretary of Energy to jointly study opportunities to use hydrogen fuel cells and other related technologies in the National Park system. Also requires the Secretary of Interior to establish at least 3 geographically distributed pilot projects to demonstrate fuel cells in units of the National Parks system with the greatest potential for such use. (Sec. 814)	Authorizes the Secretary of Energy, in cooperation with the Secretary of the Interior, to establish a matching funds program for fuel cell deployment in one or more prominent National Parks. Requires an annual progress report, and authorizes \$2 million for each of fiscal years 2004 through 2010. (Sec. 60009)	
<b>INTERNATIONAL DEMONSTRATION PROGRAM</b>	Requires the Secretary of Energy to establish a demonstration program for fuel cells and related hydrogen technologies for stationary or transportation applications in countries other than the United States. Authorizes \$25 million for each of fiscal years 2006 through 2010. (Sec. 815)	No similar provision.	
<b>TRIBAL STATIONARY HYBRID POWER DEMONSTRATION</b>	Requires the Secretary to develop and transmit to Congress a strategy for a demonstration and commercial application program to develop hybrid systems combining distributed renewable generation with fuel cells for use on Indian land. (Sec. 816)	No similar provision.	
<b>DISTRIBUTED GENERATION PILOT PROGRAM</b>	Requires the Secretary of Energy to establish a demonstration program to develop, deploy and commercialize distributed generation systems that significantly reduce the cost of producing hydrogen from renewable energy. (Sec. 817)	No similar provision.	
<b>ADVANCED POWER SYSTEM TECHNOLOGY</b>	No similar provision.	Authorizes the Secretary to establish an incentive program to support the deployment of advanced power system technologies and to improve and protect certain security and assured power facilities. (Sec. 60010)	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>PUBLIC EDUCATION AND TRAINING</b>	Requires the Secretary of Energy to establish programs designed to increase public interest and acceptance of hydrogen fuel technologies, and to provide university-based training for research in critical hydrogen and fuel cell-related technologies. Authorizes \$7 million for each of fiscal years 2004 through 2008 for such programs. (Sec. 821)	No similar provision.	
<b>HYDROGEN TRANSITION STRATEGIC PLANNING</b>	Requires the head of each Federal agency, with an annual outlays greater than \$20 million, to submit to the OMB Director and the Congress a strategic plan for the agency's transition to a hydrogen-based operation. States that the plan shall not cover a period of less than five years and must be updated at least every three years. (Sec. 822)  Program must assess how increased hydrogen use will impact natural gas demand. (Sec. 822(b)*)	No similar provision.	
<b>MINIMUM FEDERAL FLEET REQUIREMENT</b>	Amends EPOA to require each agency to purchase 5% of its new vehicles as hydrogen-powered vehicles in fiscal years 2006 and 2007, increasing to 20% for fiscal years 2012 and thereafter. Provides for waiver, delay, or reduction in requirement if hydrogen-powered vehicles are not available at less than 150% of the cost of a comparable alternative fueled vehicle. Requires commercial refueling arrangements where possible. (Sec. 823)	No similar provision.	
<b>STATIONARY FUEL CELL PURCHASE REQUIREMENT</b>	Requires the Federal government to offset not less than 1% of its total electric energy consumption from fuel cells in fiscal years 2006 through 2008, increasing to not less than 3% in 2011 and thereafter. Authorizes \$400 million over five years to offset costs to Federal agencies. (Sec. 824)	No similar provision.	



	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>DEPARTMENT OF ENERGY STRATEGY</b>	<p>Requires the Secretary to publish and submit to Congress a plan to identify critical technologies and related targets and timetables to support commercialization of hydrogen-fueled fuel cell vehicles. (Sec. 825(a))</p> <p>The plan must include a program to support the deployment of 100,000 hydrogen fuel-cell vehicles by 2010 and 2.5 million by 2020, and a plan to provide for a sufficient number of hydrogen fueling stations by 2010 and 2020. (Sec. 825(b)*)</p>	No similar provision.	Requires DOE to develop a plan for enabling sale of at least 100,000 fuel cell vehicles by 2010 and at least 2.5 million fuel cell vehicles by 2020. Requires plans for development of technologies to enable sale of at least 50 million gallons equivalent of hydrogen fuel by 2010, and at least 2.5 billion gallons equivalent of hydrogen fuel by 2020. Requires annual review of progress. (Sec. 824)
<b>RENEWABLE PRODUCTION OF HYDROGEN</b>	Directs Secretary to establish a demonstration program for the production of hydrogen from renewable resources. Authorizes \$10 million for fiscal year 2004 and \$25 million for each of fiscal years 2005 through 2008. (Sec. 818*)	No similar provision.	No similar provision.

**RESEARCH AND DEVELOPMENT**

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>GOALS, PURPOSES AND DEFINITIONS</b>	<p>Requires Secretary to publish annually, for public comment, measurable cost and performance-based goals for energy efficiency, electric generation, renewable energy, fossil energy, and nuclear energy. (Sec. 902)</p> <p>No similar provision.</p> <p>Defines terms uses throughout title. (Sec. 903)</p>	<p>Sets forth detailed goals for energy efficiency, distributed energy and electric energy systems, renewable energy, fossil energy, nuclear energy, and hydrogen. Requires evaluation and public comment every 5 years. (Sec. 20002)</p> <p>States that the purposes of the section are to contribute to energy security, reduce environmental impact, increase domestic production, and stimulate economic development. (Sec. 20001)</p> <p>Similar to S. 14, but defines “nonmilitary energy laboratory” differently. Also provides definitions for “independent producer of oil and gas” and “joint venture” (Sec. 20003)</p>	<p>Sets goals and findings. (Sec. 1201-02)</p> <p>Defines terms used throughout the title. (Sec. 1203)</p>
<b>ENERGY EFFICIENCY</b>	<p>Establishes authorization levels for fiscal years 2004 through 2008.</p> <p>Earmarks \$50 million for Next Generation Lighting Initiative, and then provides an additional \$400 million in authorizations.</p> <p>Allocates \$32 million to secondary electric vehicle battery use program.</p> <p>Earmarks \$150 million to competitive research grants for energy efficiency.</p> <p>No similar provision.</p> <p>Sets forth limitations on funds. (Sec. 911)</p>	<p>Similar to S. 14, but only provides general authorization levels through 2007.</p> <p>Earmarks \$150 million for Next Generation Lighting Initiative, and then provides an additional \$250 million in authorizations.</p> <p>Allocates \$25 million to secondary electric vehicle battery use program.</p> <p>Earmarks \$110 million to competitive research grants for energy efficiency.</p> <p>Allocates \$8 million for electric motor control technology.</p> <p>Same as S. 14. (Sec. 21101).</p>	<p>Sets technology goals and authorizes funding from \$700 million in FY 2003 to \$983 million in FY 2006 for DOE energy-efficient housing, industrial energy efficiency, and transportation energy efficiency programs. (Sec. 1211)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>NEXT GENERATION LIGHTING INITIATIVE</b>	Authorizes a new Initiative to develop advanced solid state lighting options through research, development, demonstration, and commercial application activities. Defines selection of an Industry Alliance to assist in updating roadmaps and assessing progress of the Initiative. (Sec. 912)	Similar to S. 14, but sets forth more detailed targets and timetables, requires establishment of a consortium (including private companies, trade associations or universities) to carry out the Initiative, does not include Industry Alliance, does not require cost-sharing, grants broad intellectual property rights, and requires an annual audit. (Sec. 21111)	Establishes consortium to research and develop the next generation of white-light emitting diodes for ultra-efficient lighting applications. Authorizes \$50 million for each of fiscal years 2003 through 2011. (Sec. 1213)
<b>NATIONAL BUILDING PERFORMANCE INITIATIVE</b>	Authorizes the Director of OSTP to establish an interagency program to address energy conservation and R&D efforts to reduce energy use in buildings. Establishes an advisory committee to oversee creation and implementation of a plan, and requires annual progress reports. (Sec. 913)	Similar to S. 14, but requires collaboration with the National Institute of Building Sciences and stipulates membership for the advisory committee. (Sec. 21121)	
<b>ELECTRIC MOTOR CONTROL TECHNOLOGY</b>	No similar provision.	Requires the Secretary to conduct a program to improve energy efficiency of motors used in HVAC systems. (Sec. 21122)	
<b>SECONDARY ELECTRIC VEHICLE BATTERY USE PROGRAM</b>	Directs the Secretary to establish a program to evaluate secondary use of electric vehicle batteries through research, development, demonstration, and commercial application initiatives. (Sec. 914)	Similar to S. 14, but details information to be included in proposals, limits projects demonstrating similar battery types to 3, and includes more criteria for consideration in awarding grants. (Sec. 21131-21132)	
<b>ENERGY EFFICIENCY SCIENCE INITIATIVE</b>	Authorizes a research program administered by the Assistant Secretary responsible for energy conservation. (Sec. 915)	Same as S. 14. (Sec. 21141)	Authorizes up to \$50 million annually for a competitive grant program to foster research relating to energy efficiency. Requires an annual report to Congress on program activities. (Sec. 1212)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ADVANCED ENERGY TECHNOLOGY TRANSFER CENTERS</b>	No similar provision.	Establishes a grant program to create a network of Advanced Energy Technology Transfer Centers. Centers will operate programs to encourage demonstration and commercialization of technologies that encourage energy efficiency and conservation. (Sec. 21151)	
<b>DISTRIBUTED ENERGY AND ELECTRIC ENERGY SYSTEMS</b>	Establishes authorization levels.  Allocates \$140 million to Power Delivery Research Initiative.  Allocates \$20 million in each of fiscal years 2004 and 2005 for micro-cogeneration energy technology. (Sec. 921)	Similar to S. 14, but does not include levels for fiscal year 2008.  No similar provision.  Authorizes \$23 million over four years. (Sec. 21201).	Requires DOE to develop an R&D program to improve energy efficiency and reliability in high power density industries. (Sec. 1215)
<b>HYBRID DISTRIBUTED POWER SYSTEMS</b>	Authorizes creation of a strategy for developing hybrid distributed power systems that combine a renewable technology and nonintermittent power generation technologies. (Sec. 922)	Similar to S. 14, but specifies contents of the strategy. (Sec. 21211)	
<b>HIGH POWER DENSITY INDUSTRY PROGRAM</b>	Authorizes creation of a research and demonstration program for high power density facilities. (Sec. 923)	Same as S. 14. (Sec. 21212)	
<b>MICRO-COGENERATION ENERGY TECHNOLOGY</b>	Authorizes grants to consortia to develop technology to use small-scale combined heat and power in residential applications, to use excess power to operate appliances in homes, and to supply excess generated power to the power grid. (Sec. 924).	Similar to S. 14, but limited to small-scale heat and power systems. (Sec. 21213)	
<b>DISTRIBUTED ENERGY TECHNOLOGY PROGRAM</b>	Authorizes assistance to projects using distributed energy technologies in highly energy intensive commercial applications. (Sec. 925)	No similar provision.	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>OFFICE OF ELECTRIC TRANSMISSION AND DISTRIBUTION</b>	Amends Title II of the Department of Energy Organization Act to create a new Office of Electric Transmission and Distribution. (Sec. 926)	No similar provision.	
<b>ELECTRIC TRANSMISSION AND DISTRIBUTION PROGRAMS</b>	<p>Authorizes research, development and demonstration programs to ensure reliability, efficiency and environmental integrity of electrical transmission systems. Outlines topics the program shall include. Requires a 5-year plan to be completed within the first year.</p> <p>Authorizes a Power Delivery Research Initiative focused on establishing test beds at National Labs, universities, or in industry, to evaluate and demonstrate the technologies required to move high temperature superconductivity into commercial use.</p> <p>Authorizes a Transmission and Distribution Grid Planning and Operations Initiative for research, development and demonstration of tools to plan, operate, and expand transmission and distribution grids in realistic market scenarios. (Sec. 927)</p>	<p>Similar to S. 14, but requires program to include commercialization of technologies, and lists topics the program may include. (Sec. 21221)</p> <p>No similar provision.</p> <p>No similar provision.</p>	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>RENEWABLE ENERGY</b>	<p>Establishes authorization levels for fiscal years 2004 through 2008.</p> <p>Allocates \$830,675,000 for bioenergy over fiscal years 2004 through 2008.</p> <p>Allocates \$25 million to biodiesel engine testing and \$210 million for concentrating solar power research.</p> <p>No similar provision.</p> <p>Prohibits funds from being used for Renewable Support and Implementation, and earmarks funds for bioenergy grants.</p> <p>No similar provision. (Sec. 931)</p>	<p>Establishes levels for fiscal years 2004 through 2007, providing \$540 million less than S. 14 over those years. (Sec. 21301).</p> <p>Provides identical allocations for fiscal years 2004 through 2007.</p> <p>No similar provision.</p> <p>Allocates \$120 million to renewable energy in public buildings.</p> <p>Same as S. 14.</p> <p>Authorizes funds to be used for rural and remote programs, regional field verification programs, and hydropower demonstration projects. (Sec. 21301)</p>	<p>Authorizes funding from \$500 million in FY 2003 to \$733 million in FY 2006 for DOE wind power, photovoltaics, solar thermal, biomass and biofuels, geothermal, hydrogen, hydropower, and electric energy systems and storage programs. (Sec. 1221)</p>
<b>BIOENERGY PROGRAMS</b>	<p>Authorizes a broad program of research in biopower, biofuels and bioproducts, including technologies utilizing cellulosic feedstocks or enzyme-based processing (Sec. 932).</p>	<p>Similar to S. 14, but does not include details on biofuels and bioproducts programs. (Sec. 21311)</p>	<p>Authorizes funding for bioenergy and biofuels programs (including integrated research programs), increasing from \$117.8 million in FY02, to \$167.65 million in FY06. (Sec. 1222)</p>
<b>BIODIESEL ENGINE TESTING PROGRAM</b>	<p>Authorizes testing to determine the impact of biodiesel on current and future emission control technologies and requires a report within 2 years on the findings of the study. (Sec. 933)</p>	<p>No similar provision.</p>	
<b>CONCENTRATING SOLAR POWER RESEARCH PROGRAM</b>	<p>Authorizes a program of research on concentrating solar power research to establish technologies and economics of both electricity and hydrogen production. Requires recommendations for future research within 4 years. (Sec. 934)</p>	<p>No similar provision.</p>	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>MISCELLANEOUS PROJECTS</b>	<p>Authorizes R&amp;D in ocean energy, combinations of renewable and other energy sources, and renewable energy hydrogen cogeneration. (Sec. 935)</p> <p>No similar provision.</p>	<p>Similar to S. 14, but includes hydrogen carrier fuels in place of cogeneration.</p> <p>Requires DOE to enter into an agreement with NAS to conduct a study on the feasibility and requirements for marine renewable energy generation. (Sec. 21321)</p>	
<b>RENEWABLE ENERGY IN PUBLIC BUILDINGS</b>	<p>No similar provision.</p>	<p>Directs Secretary to establish a demonstration program for innovative technologies for solar and other energy sources in State and local government buildings. Limits Federal share of funds to 40 percent of the incremental costs. (Sec. 21322)</p>	
<b>NUCLEAR ENERGY</b>	<p>Establishes general authorization levels for fiscal years 2004 through 2008.</p> <p>Authorizes an additional \$675 million for infrastructure support.</p> <p>Allocates \$865 million for advanced fuel cycle initiative and \$220.6 million for university programs over fiscal years 2004 through 2008.</p> <p>Prohibits funds from being used for decommissioning the Fast Flux Test Facility. (Sec. 941)</p>	<p>Establishes general levels for fiscal years 2004 through 2007.</p> <p>Allocates \$530 million to infrastructure support.</p> <p>Allocated \$399 million for advanced fuel cycle program and \$183.7 million for university programs over fiscal years 2004 through 2007. Includes additional breakdowns for university allocations.</p> <p>Same as S. 14. (Sec. 21401)</p>	<p>Authorizes funding for nuclear energy R&amp;D programs (\$100 million in FY 2003 to \$130 million in FY 2006) and for supporting infrastructure in the DOE complex (\$200 million in FY 2003 to \$212 million in FY 2006). (Sec. 1241)</p>
<b>NUCLEAR ENERGY RESEARCH PROGRAMS</b>	<p>Authorizes the Nuclear Energy Research Initiative, Nuclear Energy Plant Optimization, Nuclear Power 2010, Generation IV Nuclear Energy Systems, Reactor Production of Hydrogen, and Nuclear Infrastructure Support Programs. Requires strategy on nuclear infrastructure to be submitted along with President's fiscal year 2006 budget request. (Sec. 942)</p>	<p>Similar to S. 14, but does not include authorization for reactor production of hydrogen, and requires the strategy to be submitted with the President's 2005 budget request. (Sec. 21411)</p>	<p>Authorizes such sums as are necessary for a Nuclear Energy Research Initiative. (Sec. 1243)</p> <p>Authorizes Nuclear Power 2010. (Sec. 514)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ADVANCED FUEL CYCLE INITIATIVE</b>	Authorizes the Advanced Fuel Cycle Initiative to evaluate proliferation-resistant fuel recycling and transmutation technologies, which support evaluation of alternative national strategies for spent fuel management and Generation IV advanced reactor concepts. An annual progress report is required. (Sec. 943)	Same as S. 14. (Sec. 21421)	Authorizes such sums as are necessary to develop a technology roadmap for new nuclear energy power plants, including a study of Generation IV reactors. (Sec. 1245)
<b>UNIVERSITY NUCLEAR SCIENCE AND ENGINEERING SUPPORT</b>	Authorizes fellowship and faculty assistance programs, maintains university research and training reactors, and encourages university-National Lab interactions. (Sec. 944)	Similar to S. 14, but does not include Offices of Nuclear Energy, Science and Technology, and Civilian Radioactive Waste in assistance programs. Allows Secretary to provide student fellowships at the National Labs. (Sec. 21431)	Authorizes \$33 million in FY 2003 increasing to \$50.1 million in FY 2006 from nuclear R&D accounts to maintain the university-based investment and infrastructure in departments of nuclear sciences and nuclear engineering, including support for university research reactors. (Sec. 1242)
<b>SECURITY OF NUCLEAR FACILITIES</b>	Authorizes research and development on technologies for improving safety and security of reactors. (Sec. 945)	No similar provision.	
<b>NUCLEAR ENERGY PLANT OPTIMIZATION</b>			Authorizes such sums as are necessary to improve nuclear energy plant reliability, availability, and productivity, with a 50 percent cost-share by industry. (Sec. 1244)
<b>ALTERNATIVES TO INDUSTRIAL RADIOACTIVE SOURCES</b>	Authorizes research and development on alternatives to large industrial radioactive sources, including well-logging sources, that reduce safety, environmental, or proliferation risks. Requires a report to Congress on existing types of commercial sources, along with review of available disposal options for such sources and evaluation of the need for alternative future disposal options. (Sec. 946)	No similar provision.	
<b>GEOLOGICAL ISOLATION OF SPENT FUEL</b>	No similar provision.	Directs Secretary to conduct a feasibility study on deep borehole disposal of spent nuclear fuel. (Sec. 21441)	



	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>FOSSIL ENERGY</b>	<p>Establishes authorization levels for fiscal years 2004 through 2008.</p> <p>No similar provision.</p> <p>Allocates funds to fuel cell demonstration programs, coal mining research, coal and related technologies, and the Office of Arctic Energy.</p> <p>Provides extended authorization for the Office of Arctic Energy through 2012.</p> <p>Places limits on uses of funds. (Sec. 951)</p>	<p>Establishes authorization levels for fiscal years 2004 through 2007, and requires at least 60 percent annually to go to coal research.</p> <p>Directs an amount equal to 7.5 percent of royalties, rents, and bonuses received into an Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Research Fund, and makes allocations of such funds.</p> <p>Allocates funds to fuel cell demonstration programs, coal mining research, and the Office of Arctic Energy.</p> <p>Provides extended authorization for the Office of Arctic Energy through 2011.</p> <p>Same as S. 14. (Sec. 21501)</p>	<p>Authorizes funding from \$485 million in FY 2003 to \$558 million in FY 2006 for coal, oil, natural gas, and transportation fuels programs. (Sec. 1231)</p>
<b>FOSSIL ENERGY RESEARCH PROGRAMS</b>	<p>Authorizes research programs for oil and gas.</p> <p>Requires a report at two-year intervals on oil and gas reserves off the coast of Louisiana and Texas and establishes a national center or consortium of excellence in clean energy and power generation. (Sec. 952)</p>	<p>Similar to S. 14, but requires use of existing technology transfer mechanisms. (Sec. 21511)</p> <p>No similar provision.</p>	<p>Authorizes a five-year R&amp;D program for natural gas transportation and distribution infrastructure and for distributed energy resources using natural gas. (Sec. 1235)</p>
<b>RESEARCH AND DEVELOPMENT FOR COAL MINING TECHNOLOGIES</b>	<p>Authorizes research and development program on coal mining technologies. Research is to be guided by the Mining Industry of the Future program and NAS reports, include research on contaminant minimization and coalbed methane, and expand mining research capabilities. (Sec. 953)</p>	<p>Similar to S. 14, but does not include provisions on contaminants or coalbed methane. (Sec. 21512)</p>	<p>Establishes a cooperative research partnership to pursue R&amp;D priorities identified in mining technology roadmaps. Authorizes \$12 million in FY 2003 and \$15 million in FY 2004, with 20 percent to be spent at universities. (Sec. 1233)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>COAL AND RELATED TECHNOLOGIES PROGRAM</b>	Authorizes a broad research, development, demonstration and commercial application program for coal and power systems. Requires the Secretary to identify cost and performance goals. (Sec. 954).	Authorizes program for coal and power systems research, with slightly different requirements than S. 14. Requires a report detailing how the program will operate and not duplicate Clean Coal Power Initiative. (Sec. 21511(a))	
<b>COMPLEX WELL TECHNOLOGY TESTING FACILITY</b>	Authorizes a Complex Well Technology Testing Facility at the Rocky Mountain Oilfield Testing Center to increase the range of extended drilling technologies (Sec. 955).	Similar to S. 14, but specifies that drilling range should be extended to 50,000 feet. (Sec. 12404)	
<b>ULTRA-DEEPWATER AND UNCONVENTIONAL NATURAL GAS AND OTHER PETROLEUM RESOURCES</b>	No similar provision.	Establishes a research, development, demonstration, and commercialization program for ultra-deepwater and unconventional natural gas and other petroleum resources. Sets forth program elements, including safety and environmental impact mitigation. Places limits on program locations and participation. Requires Secretary to contract with a consortium to administer a grant program for ultra-deepwater technology and architecture, and directs the Secretary to manage a grant program for exploration and production technology. Establishes requirements for awards, creates advisory committees for each grant program, and provides for technology transfer. Terminates program on Sept. 30, 2010. (Sec. 21521-21530)	Establishes a DOE program of research, development, and demonstration of ultra-deepwater resource exploration and production technologies, including development from ultra-deepwater offshore or unconventional onshore resources.  Establishes procedures for award of grants, including establishment of an advisory committee, and use consortia of industry and universities to manage research and development activities under this section.  Authorizes appropriation of such sums as are necessary to carry out the program through 2009. (Sec. 1234)
<b>SCIENCE</b>	Establishes general authorization levels for fiscal years 2004 through 2008, and provides separate authorization levels for ITER.  Earmarks funds for the Fusion Energy Sciences Program, the Spallation Neutron Source, catalysis research, nanoscale research, the Genomes to Life Program, and the Water Supply Technologies Program. (Sec. 961)	Establishes authorization levels for fiscal years 2004 through 2007.  Earmarks funds for the Fusion Energy Sciences Program, ITER, the Spallation Neutron Source, nanotechnology research, science and technology scholarships, and the Genomes to Life program. (Sec. 21601)	Authorizes funding for programs in the DOE Office of Science (except for climate change science) from \$3.785 billion in FY03 to \$5.0 billion in FY06. (Sec. 1251)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>UNITED STATES PARTICIPATION IN ITER</b>	<p>Authorizes U.S. participation in ITER and requires a comprehensive plan for participation to be submitted to Congress within 180 days . Authorizes Secretary to implement FIRE if ITER does not move forward; requires plan for project to be transmitted to Congress and the National Research Council. (Sec. 962)</p> <p>No similar provision.</p>	<p>Similar to S. 14, but provides guidelines for U.S. participation rather than requiring the submittal of a plan, and requires NAS review of plan for FIRE. (Sec. 21611-21612)</p> <p>Declares support for fusion energy research and requires development of a fusion energy research plan. (Sec. 21613)</p>	<p>Requires development of a fusion energy sciences program plan, including a plan for a U.S. magnetic fusion burning plasma experiment with the option to participate in an international fusion experiment. (Sec. 1254)</p>
<b>SPALLATION NEUTRON SOURCE</b>	<p>Sets limits on total funds expended for the Spallation Neutron Source and requires a report on the SNS as part of the annual budget submission. (Sec. 963)</p>	<p>Same as S. 14. (Sec. 21621- 21623)</p>	
<b>SUPPORT FOR SCIENCE AND ENERGY FACILITIES AND INFRASTRUCTURE</b>	<p>Requires development and implementation of a strategy for maintaining or building essential facilities and infrastructure primarily supporting programs of the Office of Science, the Office of Energy Efficiency and Renewable Energy, the Office of Fossil Energy, or the Office of Nuclear Energy, Science and Technology. Requires DOE to submit strategy with President's fiscal year 2006 budget request. (Sec. 964)</p>	<p>Similar to S. 14, but limits the strategy to non-military energy laboratories and facilities of the Office of Science and requires strategy to accompany fiscal year 2005 budget request. (Sec. 21631)</p>	
<b>CATALYSIS RESEARCH PROGRAM</b>	<p>Authorizes a broad research and development program for catalysis science including use of precious metals. Requires National Academy of Science review every 3 years. (Sec. 965)</p>	<p>Authorizes the Secretary to carry out a program for precious metal catalysis research. (Sec. 21632)</p>	<p>Authorizes DOE to carry out research in precious metal catalysis for use in industrial and automotive applications. Authorizes such sums as may be necessary for fiscal years 2003-06. (Sec. 1216)</p>
<b>NANOSCALE SCIENCE AND ENGINEERING RESEARCH</b>	<p>Authorizes nanoscale science and engineering programs supportive of Department's mission areas. Authorizes construction of Nanoscience and Nanoengineering Research Centers. (Sec. 966)</p>	<p>Directs Secretary to implement a Nanotechnology Research and Development Program. Requires DOE to report to Congress, within 2 years, describing projects to identify societal and ethical concerns related to nanotechnology and project funding. (Sec. 21633)</p>	<p>Authorizes \$270 million in FY03, increasing to \$330 million in FY06, for nano-science and nano-engineering for energy applications, including special centers and instrumentation grants. (Sec. 1252)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ADVANCED SCIENTIFIC COMPUTING FOR ENERGY MISSIONS</b>	Authorizes a robust scientific computing program supporting the Department's mission areas. Requires coordination with other national efforts, including the National Nuclear Security Administration's Accelerated Strategic Computing Initiative. Makes amendments to the High-Performance Computing Act of 1991 and extends authorization for networking and information technology programs through 2008 (Sec. 967).	Similar to S. 14, but only extends authorization for networking and technology programs in the High-Performance Computing Act through 2007 and requires reports on any new initiative prior to its start. (Sec. 21634).	Authorizes \$285 million in FY03, increasing to \$320 million in FY06, for DOE civilian high-performance computing program, focused on "grand challenges" in computation related to energy missions. (Sec. 1253)
<b>NITROGEN FIXATION</b>	No similar provision.	Directs Secretary to support research on biological nitrogen fixation, including plant genomics research. (Sec. 21635)	
<b>DOE SCIENCE AND TECHNOLOGY SCHOLARSHIPS</b>	No similar provision.	Creates a college scholarship program designed to prepare students for careers at DOE. Requires students receiving scholarship to work at DOE for 2 years for each year a scholarship was received, beginning within 2 months of graduation. (Sec. 21636)	
<b>GENOMES TO LIFE PROGRAM</b>	Authorizes research and development in systems biology and proteomics toward understanding biological systems on the scale of proteins to cells. Directs Secretary to prepare a program plan and provides parameters for program execution. Authorizes construction and ancillary equipment for the Genomes to Life user facilities (Sec. 968).	Directs Secretary to establish a research, development, and demonstration program, awarding merit-based grants to individuals and teams of investigators. Requires DOE to submit a research plan to Congress, within 1 year, describing how the plan will be undertaken, and to contract with NAS to review the research plan. (Sec. 21641)	
<b>FISSION AND FUSION ENERGY MATERIALS RESEARCH PROGRAM</b>	Authorizes a research and development program on material science issues presented by advanced fission reactors and Department's fusion program (Sec. 969).	No similar provision.	Authorizes \$335 million for program activities in FY03, increasing to \$377 million in FY06. (Sec. 1254)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ENERGY-WATER SUPPLY TECHNOLOGIES PROGRAM</b>	Authorizes a research and demonstration program to study energy-related issues associated with water resources and supplies, including arsenic removal, desalination, and energy and water sustainability. The arsenic removal program is to be run by the American Water Works Association Research Foundation for the Department; the desalination program is to follow the national Desalination and Water Purification Technology Roadmap in partnership with the US Bureau of Reclamation. The sustainability program supports water modeling studies, on the level of major national river basins, to understand water usage patterns and the impact of energy production activities in these basins (Sec. 970)	No similar provision.	
<b>GROUNDWATER REMEDIATION R&amp;D</b>			A research and demonstration program for remediation of groundwater contaminated by energy activities is authorized at \$10 million per year for FY 2003 through FY 2006. (Sec. 1262)
<b>UNITED STATES - MEXICO ENERGY TECHNOLOGY COOPERATION</b>	Authorizes a joint U.S.-Mexico collaboration in the border region to promote energy efficiency and reduce environmental risks that contribute to public health issues. (Sec. 971)	Same as S. 14. (Sec.21701- 21702).	Authorizes \$5 million in FY03, and \$6 million for each of FY04-06 for collaborative research, development and deployment programs to promote energy efficiency and environmentally sound development along the U.S. - Mexico border region. (Sec. 1414)
<b>WASTE REDUCTION AND USE OF ALTERNATIVES</b>	No similar provision.	Authorizes the Secretary to make a single grant to study the feasibility of burning post-consumer carpet in cement kilns as an alternative energy source. (Sec. 21703)	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>CRITICAL INFRASTRUCTURE PROTECTION R&amp;D</b>			Authorizes a DOE program to analyze energy infrastructure interdependencies, and provide risk assessment of unconventional and terrorist threats. Authorizes \$25 million for FY03, increasing to \$28 million in FY06 (Sec. 1261).
<b>GASIFICATION LOAN GUARANTEES</b>	No similar provision.  No similar provision.	Authorizes Secretary to provide loan guarantees for a coal gasification plant that generates at least 400 megawatts of capacity at competitive rates in deregulated markets. (Sec. 21704)  Authorizes Secretary to provide loan guarantees for at least one petroleum coke gasification project. (Sec. 21705)	
<b>BIOPOWER AND BIOENERGY</b>	No similar provision.	Directs Secretary to establish a program for various agricultural byproducts into biopower and biofuels. (Sec. 21706)	
<b>COAL TECHNOLOGY LOAN</b>	Authorizes Secretary to provide loan to clean coal plant in Healy, Alaska. (Sec. 972)	Same as S. 14. (Sec. 21707) <i>Technical note: project number in H.R. 6 is incorrect</i>	Authorizes a \$125 million loan to retrofit the clean coal plant in Healy, AK. (Sec. 1237)
<b>FUEL TEST CENTER</b>	No similar provision.	Requires Secretary to report to Congress regarding the establishment of a test center for next-generation fuel cells. (Sec. 21708)	
<b>FUEL CELL DEMONSTRATION</b>	No similar provision.	Directs Secretary to create a demonstration program for up to 12 projects for fuel cell transit buses. (Sec. 21709)	
<b>AVAILABILITY OF FUNDS</b>	Funds authorized under entire title remain available until expended. (Sec. 981)	Same as S. 14. (Sec. 21801)	Provides that all R&D program funds remain available until expended. (Sec. 1402)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>COST SHARING</b>	Sets cost sharing requirements for programs (20 percent for R&D, 50 percent for demonstration and commercial application) with ability of Secretary to waive requirement. Allows in-kind contributions. (Sec. 982)	Same as S. 14. (Sec. 21802)	Requires cost sharing for applied technology projects (20%) and demonstration projects (50%). (Sec. 1403)
<b>MERIT REVIEW OF PROPOSALS</b>	Requires merit review of proposals in this title. (Sec. 983)	Same as S. 14. (Sec. 21803)	Requires independent merit review of all proposals. (Sec. 1404)
<b>EXTERNAL TECHNICAL REVIEW OF DEPARTMENTAL PROGRAMS</b>	Requires advisory boards for Department programs and authorizes the Secretary to use the National Academy of Sciences to establish such boards and to conduct other reviews and assessments of programs and goals on at least 5-year intervals. (Sec. 984)	Similar to S. 14, but also establishes a Science Advisory Committee. (Sec. 21804)	Mandates the creation and use of external technical advisory committees for oversight of DOE programs. Sets membership and meeting requirements. (Sec. 1405)
<b>IMPROVED COORDINATION OF TECHNOLOGY TRANSFER ACTIVITIES</b>	Requires Secretary to appoint a Technology Transfer Coordinator and establishes a Tech Transfer Working Group with representation from each DOE facility (Sec. 985).	Same as S. 14. (Sec. 21805)	Requires appointment of Technology Transfer coordinators at each DOE facility. (Sec. 1407)  Requires a report on technology readiness of energy technologies being funded by the DOE and a report on barriers to technology transfer between the DOE and other technology performers. (Sec. 1413)
<b>TECHNOLOGY INFRASTRUCTURE PROGRAM</b>	Requires Secretary to establish a pilot program to encourage creation of technology clusters in support of Departmental mission areas. Provides program requirements and selection criteria. Authorizes \$10 million annually for three years. (Sec. 986)	No similar provision.	Establishes a program to improve the technology partnering capabilities of the DOE National Laboratories. Authorizes \$10 million in each of fiscal years 2003 and 2004. (Sec. 1408)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>SMALL BUSINESS ADVOCACY AND ASSISTANCE</b>	Requires each National Laboratory, and allows each single purpose research facility, to designate a small business advocate to facilitate participation of small businesses in procurement and research opportunities. Authorizes technical assistance, not to exceed \$10,000, to improve a business' products or services. Authorizes \$5 million annually for 5 years. (Sec. 987).	Similar to S. 14, but does not include authorization levels. (Sec. 21806)	Requires each DOE lab director (and as desired, each research facility) to establish programs to increase participation of small businesses in DOE awards and activities. Requires appointment of small business advocates. (Sec. 1409)
<b>MOBILITY OF SCIENTIFIC AND TECHNICAL PERSONNEL</b>	Requires report on barriers that may exist to inhibit transfer of personnel among Department's facilities and laboratories, and recommendations for improving such exchanges. (Sec. 988)	Similar to S. 14, but does not require recommendations. (Sec. 21807)	Requires DOE to, within 2 years of enactment, study ways to facilitate flows of scientists and engineers among National Laboratories. (Sec. 1411)
<b>NATIONAL ACADEMIES OF SCIENCES REPORT</b>	Requires a National Academies study on obstacles to accelerating the transition of energy technology into commercial application. (Sec. 989)	Similar to S. 14, but allows multiple studies. (Sec. 21808)	Requires study by the National Academy of Sciences on obstacles to accelerating the research, development and demonstration cycle for energy technology. (Sec. 1412)
<b>OUTREACH</b>	Requires that all programs include an outreach component to provide the public with information. (Sec. 990)	Same as S. 14. (Sec. 21809)	
<b>COMPETITIVE AWARD OF CONTRACTS</b>	Requires that contracts for nonmilitary laboratories shall be subject to competition unless the Secretary grants a waiver and informs Congress. (Sec. 991)	Same as S. 14. (Sec. 21810)	
<b>REPROGRAMMING</b>	Prohibits reprogramming that changes an individual distribution by more than 5 percent unless the Secretary has provided 30 days notice to the appropriate authorizing committees. (Sec. 992)	Same as S. 14. (Sec. 21811)	
<b>CONSTRUCTION WITH OTHER LAWS</b>	Requires Secretary to conform this title to existing laws. (Sec. 993).	Same as S. 14. (Sec. 21812)	Requires Secretary to conform this title to existing laws. (Sec. 1204)



	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>IMPROVED COORDINATION AND MANAGEMENT OF CIVILIAN SCIENCE AND TECHNOLOGY</b>	Amends the Department of Energy Organization Act to establish an additional Under Secretary designated as the Under Secretary for Science and Energy. The Office of Science shall now be headed by the Assistant Secretary for Science instead of a Director. Creates an additional Assistant Secretary position , accompanied by a sense of Congress that leadership in nuclear energy shall be at Assistant Secretary level. Makes technical and conforming amendments to title 5 of the U.S. Code. (Sec. 994)	Reconfigures Director of Office of Science as an Assistant Secretary position, and makes technical and conforming changes. (Sec. 22002)	Creates an Under Secretary for Energy and Science to oversee and coordinate DOE civilian energy R&D. Elevates the Director of the Office of Science to Assistant Secretary, and provides for an additional Assistant Secretary for nuclear energy technology programs. (Sec. 1406)
<b>EDUCATIONAL PROGRAMS IN SCIENCE AND MATHEMATICS</b>	Amends the DOE Science Education Enhancement Act to authorize DOE to support competitive science and mathematics events and reauthorizes the Act through 2008 (Sec. 995).	No similar provision.	
<b>OTHER TRANSACTIONS AUTHORITY</b>	Amends the DOE Organization Act to allow transactions by the Secretary of Energy to further research, development, or demonstrations, and exempts them from requirements in existing law that give patent and title rights for inventions to the Secretary. Authority can only be used if standard agreements are not feasible or appropriate. Allows the Secretary to protect from disclosure certain business information for up to 5 years and requires that the Secretary develop guidelines for using the other transactions mechanism. (Sec. 996)	No similar provision.	Gives DOE more flexible procurement authorities already enjoyed by the Defense Advanced Research Projects Agency (DARPA) and NASA. (Sec. 1410)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>REPORT ON RESEARCH AND DEVELOPMENT PROGRAM EVALUATION METHODOLOGIES</b>	Requires the Secretary, within 6 months of enactment, to arrange with the National Academy of Sciences to investigate the scientific and technical merits of any evaluation methodology for scientific and technical programs of at DOE and report to Congress. (Sec. 997)	No similar provision.	
<b>UNIVERSITY COLLABORATION</b>	No similar provision.	Requires feasibility report on promoting collaboration between large and small institutions of higher education through grants, contracts, and cooperative agreements provided by DOE. (Sec. 21813)	
<b>FEDERAL LABORATORY EDUCATIONAL PARTNERS</b>	No similar provision.	Allows royalties and certain other income received from licensing of inventions to be used for educational assistance. (Sec. 21814)	
<b>INTERAGENCY COOPERATION</b>	No similar provision.	Directs Secretary to worked with NASA to develop a working agreement to collaborate on research, testing, and evaluation of new energy technologies. (Sec. 21815)	

**PERSONNEL AND TRAINING**

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>WORKFORCE TRENDS AND TRAINEESHIP GRANTS</b>	Requires the Department of Energy, in consultation with the Department of Labor, to monitor workforce trends in the energy industry and report to Congress. Authorizes the Department of Energy, in consultation with the Department of Labor, to establish traineeship grants to address shortages of trained personnel. (Sec. 1001)	No similar provision.	Requires DOE to maintain cognizance of workforce trends in energy areas and provides authority to establish traineeship grants to help alleviate shortages in particular areas. Authorizes such sums as are necessary for traineeships. (Sec. 1501)
<b>RESEARCH FELLOWSHIPS IN ENERGY RESEARCH</b>	Authorizes the Secretary of Energy to establish fellowships for postdoctoral and senior researchers in energy research and development fields. (Sec. 1002)	No similar provision.	Requires DOE to establish postdoctoral and senior research fellowships to attract and retain outstanding scientists and engineers in energy research and development. Authorizes such sums as are necessary. (Sec. 1502)
<b>TRAINING GUIDELINES FOR ELECTRIC ENERGY INDUSTRY PERSONNEL</b>	Requires the Secretary of Labor, in consultation with the Secretary of Energy, to develop, jointly with the electric industry and recognized employee representatives, model personnel training guidelines to support electric system reliability and safety. (Sec. 1003)	No similar provision.	Requires DOE to work with utilities and unions to create model guidelines for training to support increased electricity reliability.(Sec. 1503)
<b>NATIONAL CENTER ON ENERGY MANAGEMENT AND BUILDING TECHNOLOGIES</b>	Requires the Secretary of Energy to support the establishment of a National Center on Energy Management and Building Technologies, to carry out research, education, and training activities to facilitate the improvement of energy efficiency and indoor air quality in industrial, commercial, and residential buildings. (Sec. 1004)	No similar provision.	Authorizes the establishment of a Building Technologies Center that provides training to improve building energy efficiency. (Sec. 1504)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>IMPROVED ACCESS TO ENERGY-RELATED SCIENTIFIC AND TECHNICAL CAREERS</b>	Requires the Director of each National Laboratory, and, at the discretion of the Secretary, each science facility operated by DOE, to take actions to increase the participation of historically Black colleges or universities, Hispanic-serving institutions, or tribal colleges in activities that improve these institutions' ability to train students in scientific and technical careers. (Sec. 1005)	No similar provision.	Amends the DOE Science Education Enhancement Act to give priority to activities that encourage women and minority students to pursue scientific and technical careers. Creates partnerships between Labs and historically Black colleges and universities, Hispanic-serving institutions, and tribal colleges. Requires a report on activities carried out under this section within 2 years of enactment. (Sec. 1505)
<b>POWER PLANT OPERATIONS TECHNOLOGY AND EDUCATION CENTER</b>	Requires the Secretary of Energy to support the establishment of a national training center to address the need for training and educating certified operators for electric power generation plants. (Sec. 1006)	No similar provision.	Requires DOE to establish a national center to address the need for training and educating certified operators for electric power generation plants. (Sec. 1506)
<b>FEDERAL MINE INSPECTORS</b>	Requires the Secretary of Labor to hire, train, and deploy additional skilled mine inspectors to maintain the number of Federal mine inspectors at or above the levels authorized by law or established by regulation. (Sec. 1007)	No similar provision.	Requires the Secretary of Labor to hire, train, and deploy additional skilled mine inspectors as necessary to ensure availability of such inspectors. (Sec. 1507)

**DOE MANAGEMENT**

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>EXTERNAL REGULATION OF THE DEPARTMENT OF ENERGY</b>	No similar provision.	Requires Secretary to report on NRC's assumption of Departmental regulatory and enforcement responsibilities with respect to nuclear safety, and on OSHA's assumption of regulatory and enforcement responsibilities with respect to occupational safety and health, at all nonmilitary labs. (Sec. 22001)	
<b>REPORT ON EEO PRACTICES</b>	No similar provision.	Requires a report on equal employment opportunity practices at the National Labs. (Sec. 22003)	
<b>INVENTORY AND PROCUREMENT CONTROLS</b>	No similar provision.	Expresses sense of the Congress that Secretary should strengthen inventory and procurement controls to prevent waste, fraud and abuse. (Sec. 22004)	

<b>ELECTRICITY</b>			
	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>DEFINITIONS</b>	Amends definitions used in the Federal Power Act. (Sec. 1101)	Provides similar definitions as S. 14 for unregulated transmitting utility and distribution utility. (Sec. 16021(f))	Defines an "electric utility" as any person or Federal or State agency (including any municipality) that sells electric energy, expressly including TVA and Federal PMAs.  Defines a "transmitting utility" as an entity (including Federal and State agencies and municipalities) that owns or operates facilities used for the transmission of electric energy in interstate commerce or for the sale of electric energy at wholesale. (Sec. 201)
<b>RELIABILITY</b>	Provides procedures for FERC certification and oversight of a FERC-approved electric reliability organization that sets mandatory, enforceable reliability rules for the interstate transmission grid. (Sec. 1111)	Similar to S. 14, with the following exceptions: – refers to bulk power system facilities or elements, rather than bulk power system components – specifically includes ISOs and independent transmission providers in the definition of transmission organization – grants New York special exemption to establish more stringent rules within the state – requires FERC to consult with States before issuing a stay of State action (Sec. 16031)	Provides procedures for FERC certification and oversight of an industry-run electric reliability organization that sets enforceable rules for the interstate transmission grid. Allows the electric reliability organization to delegate authority to regional entities. (Sec. 206)
<b>IMPLEMENTATION DATE FOR PROPOSED RULEMAKING ON SMD</b>	Remands the proposed rulemaking on Standard Market Design (Docket No. RM01-12-000) to FERC for further reconsideration and prohibits FERC from issuing a final rule or any order of general applicability dealing with matters within the scope of the proposed rule before July 1, 2005. (Sec. 1121)	No similar provision.	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>REGIONAL TRANSMISSION ORGANIZATIONS (RTOs)</b>	<p>Expresses sense of the Congress that transmitting utilities should voluntarily join independent RTOs to promote competitive markets and benefit consumers. (Sec. 1122)</p> <p>No similar provision</p>	<p>Similar to S. 14, but includes only RTOs with operational control of interstate transmission. (Sec. 16022(a))</p> <p>Expresses sense of the Congress that FERC should encourage investment for transmission capacity expansion through better rates of return on equity to utilities in RTOs. (16022(b)) Requires report on RTO applications, detailing the status of each application, explaining reasoning behind denials or lack of final approval, and discussing efforts to minimize rate scams. (Sec. 16022(c))</p>	
<b>FEDERAL PARTICIPATION IN RTOs</b>	<p>Authorizes power marketing agencies and the Tennessee Valley Authority (TVA) to join RTOs. (Sec. 1123)</p>	<p>Same as S. 14. (Sec. 16022(d))</p>	
<b>REGIONAL CONSIDERATION OF COMPETITIVE WHOLESALe MARKETS</b>	<p>Directs FERC to convene regional discussions with States to address wholesale competitive markets with a focus on issues such as RTO development, interconnection, transmission planning, price signals, seams, and market monitoring. (Sec. 1124)</p>	<p>No similar provision.</p>	
<b>REGIONAL COORDINATION</b>			<p>Makes it U.S. policy to encourage States to coordinate, on a regional basis, State energy policies and planning for energy infrastructure. (Sec. 101)</p> <p>Provides for the Department of Energy (DOE) to give technical assistance to States for such regional energy coordination, and establishes an annual conference on regional energy coordination involving federal agencies and representatives of State, local, and tribal governments. (Sec. 102)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>SERVICE OBLIGATION AND PARITY</b>	<p>Amends the FPA to protect transmission access for load-serving entities that own generation facilities, market the output of Federal generating facilities, has long-term contracts to purchase electric energy, or hold firm transmissions rights for delivery of output from such generating facilities.</p> <p>Transfers access to transmission facilities to successor entities.</p> <p>Requires FERC to exercise authority in a manner that promotes expansion of transmission capacity.</p> <p>No similar provision.</p> <p>No similar provision</p> <p>Protects the ability of FERC-approved entities to allocate transmission rights, requires load-serving entities to meet service obligations under State and local law, and protects contracts and service agreements entered into prior to enactment.</p> <p>Provides definitions for distribution utility, load-serving entity, and service obligation.</p> <p>Exempts ERCOT. (Sec. 1131)</p>	<p>Amends the FPA to protect transmission access for load-serving entities that own transmission facilities or hold contracts for firm transmission service.</p> <p>Same as S. 14.</p> <p>No similar provision.</p> <p>Authorizes FERC to make excess transmission rights available to other entities.</p> <p>Authorizes transmitting utilities to reserve transmission capacity to meet certain service obligations and contractual obligations without being considering as engaging in undue discrimination or preference.</p> <p>Protects allocation authority of PJM and the New York, New England, Midwest and California ISOs. Also protects contracts and service agreements entered into prior to enactment.</p> <p>Provides definitions for load-serving entity and existing wholesale contractual obligation.</p> <p>Same as S. 14. (Sec. 16023)</p>	



	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>OPEN NON-DISCRIMINATORY ACCESS</b>	<p>Authorizes FERC to require that unregulated transmitting utilities provide open access to their transmission systems at rates that are comparable to those they charge themselves and on comparable terms and conditions that are not unduly discriminatory. Small distribution utilities or unregulated transmitting utilities that do not own assets that are necessary for grid operation are exempted. FERC may revoke an exemption that adversely affects the efficiency and reliability of a transmission system. FERC may remand rates to an unregulated transmitting utility. (Sec. 1132)</p>	<p>Similar to S. 14, with the following exceptions:</p> <ul style="list-style-type: none"> <li>– provides additional exemption authority for facilities used in local distribution</li> <li>– does not grant FERC authority to revoke exemptions</li> <li>– does not include limitation on FERC’s ability to require States or municipalities to take certain action, or to require unregulated transmitting utilities to join RTOs (Sec. 16021)</li> </ul>	<p>Authorizes FERC to require that unregulated utilities provide open access to their transmission systems at comparable rates, terms and conditions.</p> <p>Exempts unregulated transmitting utilities that are small or do not own assets that are necessary for grid operation.</p> <p>Defines an "unregulated transmitting utility" as an entity that owns or operates facilities for the transmission of electric energy in interstate commerce, or is a muni, co-op, TVA, or a Federal PMA. (Sec. 205)</p>
<b>TRANSMISSION INFRASTRUCTURE INVESTMENT</b>	<p>Requires FERC to establish by rule, within six months of the date of enactment, transmission pricing policies applicable to all public utilities, as well as policies for the allocation of costs associated with interconnection of new transmission facilities that are not located within an RTO. The cost allocation rulemaking shall seek to ensure that such interconnection costs are allocated in a way that ensures all users of the system bear their appropriate share of costs and that anyone who pays for new facilities is appropriately compensated. (Sec. 1133)</p>	<p>Requires a rulemaking, within one year of enactment, to establish incentive-based transmission rate treatments that promote capital investment in enlarging and improving transmission facilities. The rules should promote economically efficient transmission and generation, attract new investment, and encourage the use of technologies that increase the capacity and efficiency of existing facilities. Provides for participant funding of new transmission facilities that increase transfer capacity, and requires all rates filed under this section to be just and reasonable. (Sec. 16011)</p>	<p>Expresses the Sense of Senate that the Federal Government should be attentive to electric power transmission issues, particularly as related to infrastructure investment. (Sec. 210)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<p><b>TRANSMISSION FACILITIES SITING</b></p>	<p>No similar provision.</p>	<p>Requires Secretary to conduct transmission congestion studies in which interstate congestion areas may be designated. Allows FERC to issue permits upon finding that a State lacks authority to approve siting or has withheld, conditioned or delayed such approval; facilities will be used for interstate transmission; and the proposal is in the public interest and will significantly reduce congestion. Allows permit holders, in certain circumstances, to exercise eminent domain to acquire rights-of-way. Provides for just compensation of private property and the return of such property if facilities are not constructed in a reasonable time. Preserves independence of ERCOT. Authorizes DOE to serve as lead agency for Federal authorization and environmental review. Directs DOE to establish binding milestones and deadlines, coordinated with other appropriate and willing non-Federal entities. Requires Secretary to prepare a single environmental review and to streamline permitting within designated transmission corridors. (Sec. 16012)</p>	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>TRANSMISSION FACILITIES SITING, CON'T</b>	No similar provision.	Provides an appeals process for denial or delays of permits. Authorizes Federal entities, Indian tribes, States, and multi-state entities to enter into MOAs for coordinated siting. Requires DOE to consult with FERC, RTOs, and ISOs. Grants Congressional consent to interstate compacts establishing regional transmission siting agencies that may facilitate coordination or carry out State siting responsibilities. Exempts wilderness preserves, wild and scenic rivers, National Parks, and National Monuments from this section. Requires joint report identifying all transmission and distribution corridors on Federal lands and the status of work on corridors, the number and status of pending siting applications, and the process for managing upcoming renewals of rights-of-way. (Sec. 16012)	
<b>TRANSMISSION TECHNOLOGIES</b>	No similar provision.	Requires FERC to encourage the deployment of technology that maximizes the capacity and efficiency of transmission networks and reduces line losses. (Sec. 16013)	
<b>INTERMITTENT GENERATORS</b>	No similar provision.	No similar provision.	Requires transmitting utilities to provide access to transmission for wind or solar generators at rates and terms that do not penalize the generator for scheduling deviations that are beyond the control of the generator. (Sec. 208)
<b>NET METERING</b>	Amends the Public Utility Regulatory Policies Act of 1978 (PURPA) to require States to consider the adoption of net metering standards regarding how on-site energy production will be measured and billed. (Sec. 1141)	Similar to S. 14, but requires compliance according to “normal” metering practices, rather than “reasonable” metering practices. (Sec. 16071)	Requires States to consider standards to enable net metering for solar, wind or fuel cell systems smaller than 10 kW, or commercial renewable or cogeneration systems smaller than 500 kW. Specifies disposition of charges, safety and performance standards, and control and testing requirements. (Sec. 245)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>SMART METERING</b>	<p>Amends PURPA to require utilities to offer time-based rate schedules to customers.</p> <p>Requires States to consider real time and time based pricing and other forms of demand response systems that benefit consumers.</p> <p>Outlines role for Federal assistance on demand response, authorizes the Secretary to provide technical assistance, requires an annual report on demand response, and provides a policy statement on cost recovery of demand response devices. (Sec. 1142)</p>	<p>Similar to S. 14, but requires compliance within 18 months of the date of enactment.</p> <p>Similar to S. 14, but requires compliance within 12 months of the date of enactment.</p> <p>Similar to S. 14, but also includes policy statement that benefits received by those not deploying demand response devices shall be recognized. (Sec. 16063)</p>	
<b>ADOPTION OF ADDITIONAL STANDARDS</b>	<p>Amends PURPA to require States to consider standards for interconnection of distributed generation and other generators to the distribution grid; for minimum fuel and technology diversity; and for fossil fuel efficiency. (Sec. 1143)</p>	<p>No similar provision.</p>	<p>Requires States to consider standards for interconnection of distributed generation and other generators to the distribution grid; for minimum fuel and technology diversity; and for fossil fuel efficiency. (Sec. 242)</p>
<b>TECHNICAL ASSISTANCE</b>	<p>Permits the Secretary of Energy to offer technical assistance to States and electric utilities. (Sec. 1144)</p>	<p>No similar provision.</p>	<p>Authorizes States to provide technical assistance. (Sec. 243)</p>
<b>REAL-TIME PRICING AND TIME-OF-USE METERING STANDARDS</b>	<p>No similar provision.</p>	<p>Amends PURPA to require electric utilities to provide real-time rate schedules and time-of-use rate schedules, and requires, in States where third-party marketers may sell electric energy to retail consumers, that such consumers have access to the same real-time and time-of-use metering and communication service as direct retail consumers.” (Sec. 16061)</p>	<p>Requires States to consider standards for real-time pricing and time-of-use metering of electricity. (Sec. 241)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>COGENERATION AND SMALL POWER PRODUCTION PURCHASE AND SALE REQUIREMENTS</b>	<p>Prospectively repeals PURPA’s mandatory purchase requirements (which oblige electric utilities to buy power from qualifying cogeneration and small power production facilities) if an independently administered, auction-based day ahead and real time market exists.</p> <p>Prospectively repeals PURPA’s mandatory sale requirements (which oblige electric utilities to sell back-up power to qualifying cogeneration and small power production facilities) if competing retail suppliers are available.</p> <p>Provides for the recovery of prudently incurred costs.</p> <p>No similar provision.</p> <p>Eliminates ownership limitations in FPA. (Sec. 1145)</p>	<p>Similar to S. 14, but also requires, as a condition of terminating purchase obligations, access to long-term wholesale markets. Also grants FERC authority to terminate purchase obligations if the a cogeneration facility does not meet certain criteria. Sets forth procedures for utilities to request termination of purchase obligations, and for reinstatement of such obligations.</p> <p>Similar to S. 14, but in order for sale obligations to be terminated, the utility can not be required by State law to sell electric energy in its service territory.</p> <p>Same as S. 14.</p> <p>Requires rulemakings for new and existing facilities.</p> <p>Same as S. 14. (Sec. 16062)</p>	<p>Prospectively repeals mandatory purchase and sale requirements and ownership limitations under PURPA, provided that FERC finds the qualifying facility has access to real-time wholesale markets for the sale of electric energy. (Sec. 244)</p>
<b>RECOVERY OF COSTS</b>	<p>Ensures that public utilities do not directly or indirectly absorb costs associated with purchases from qualifying cogeneration and small power production facilities. (Sec. 1146)</p>	<p>No similar provision.</p>	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>PUHCA</b>	<p>Repeals the Public Utility Holding Company Act of 1935 (Sec. 1152)</p> <p>Defines terms used in the subtitle. (Sec. 1151)</p> <p>Gives FERC authority to require that each holding company, associate company and affiliate company make available to FERC books, accounts and records that FERC determines are relevant to costs incurred by a public utility or natural gas company that is an associate of a holding company and that are necessary and appropriate to protect utility customers with respect to jurisdictional rates. (Sec. 1153)</p> <p>Provides that PUHCA provisions do not apply to the U.S. Government, any state or political subdivision, any foreign government authority not operating in the U.S., or any agency, authority or instrumentality of any of the above. (Sec. 1157)</p> <p>Preserves the authority of FERC or a State commission to determine if a jurisdictional public utility company can recover in rates costs incurred through transactions with affiliates. (Sec. 1156)</p>	<p>Same as S. 14. (Sec. 16043)</p> <p>Same as S.14. (Sec. 16042)</p> <p>Same as S. 14, except uses the phrase “deems are relevant” in place of “determines are relevant”. (Sec. 16044)</p> <p>Similar to S. 14, but allows for application to such entities as specifically provided for in the subtitle. (Sec. 16048)</p> <p>Same as S. 14. (Sec. 16047(b))</p>	<p>Repeals the Public Utility Holding Company Act of 1935 (PUHCA), 18 months after date of enactment.</p> <p>Prescribes procedural guidelines for both Federal Energy Regulatory Commission (FERC) and State access to records of a holding company (including subsidiaries, associates, and affiliates) of a public utility or natural gas company.</p> <p>Grants FERC certain Federal Power Act enforcement powers. Amends FPA to repeal its conflict of jurisdiction guidelines. (Sec. 221-233, 236-238)</p> <p>Requires GAO to study effectiveness of PUHCA repeal on competition in electricity markets during the 18 month period after enactment. (Sec. 235)</p> <p>Establishes an interagency Task Force to review policies and measures to enhance electricity competition, with a final report due within one year. (Sec. 234)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>PUHCA</b>	<p>Provides that, upon request of a State commission having jurisdiction to regulate a public utility company in a holding company system, and under conditions to ensure confidentiality of trade secrets or sensitive commercial information, a holding company, associate company or affiliate company is to make available to the State commission books, accounts and records that have been identified and determined to be relevant by the State commission to costs incurred by such public utility company and that are necessary and appropriate to protect utility customers with respect to jurisdictional rates. States can obtain books and records under state law or other applicable Federal law. (Sec. 1154)</p> <p>Directs FERC to promulgate a final rule exempting from the Federal books and records requirement any person that is a holding company solely with respect to a qualifying facility, exempt wholesale generator, or foreign utility companies. FERC can exempt other records for any class of transactions that it finds are not relevant to jurisdictional rates. (Sec. 1155)</p> <p>No similar provision.</p> <p>Preserves authorities of FERC or State commission under applicable law. (Sec. 1158)</p> <p>Authorizes FERC to use its enforcement authorities under the FPA to enforce this subtitle. (Sec. 1159)</p>	<p>Similar to S. 14, but uses the phrase “deems are relevant” in place of “determines are relevant” and exempts persons considered holding companies only under PURPA. (Sec. 16045)</p> <p>Same as S. 14. (Sec. 16046)</p> <p>Preserves the authority of FERC or a State commission to require that jurisdictional rates are just and reasonable or to promulgate rules to protect utility customers (Sec. 16047(a))</p> <p>Same as S. 14. (Sec. 16049)</p> <p>Same as S. 14. (Sec. 16050)</p>	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>PUHCA</b>	<p>Permits continuation of activities authorized as of the date of enactment and preserves FERC authority under the FPA and the Natural Gas Act. (Sec. 1160)</p> <p>Authorizes FERC to promulgate regulations to implement this subtitle and to submit recommendations to Congress for technical and conforming amendments. (Sec. 1161)</p> <p>Requires SEC to transfer books and records to FERC. (Sec. 1162)</p> <p>Provides that the provisions related to PUHCA take effect 12 months after the date of enactment. (Sec. 1163)</p> <p>Repeals FPA section 318, dealing with conflicts in jurisdiction between PUHCA and the FPA. (Sec. 1164)</p>	<p>Same as S. 14. (Sec. 16051)</p> <p>Similar to S. 14, but excludes provision on State access to books and records. (Sec. 16052)</p> <p>Same as S. 14 (Sec. 16053)</p> <p>Same as S. 14. (Sec. 16054)</p> <p>Similar to S. 14, but also amends the FPA to apply definitions used in this subtitle. (Sec. 16055)</p>	
<b>MARKET TRANSPARENCY</b>	<p>Requires FERC to establish an electronic system to provide information on availability and price of wholesale electric energy and transmission services. (Sec. 1171)</p>	<p>Similar to S. 14, but requires information on a timely basis and gives the Commission authority to obtain information from any person. (Sec. 16081)</p>	<p>Requires FERC to establish an electronic system to provide information on availability and price of wholesale electric energy and transmission services. (Sec. 207)</p>
<b>MARKET MANIPULATION</b>	<p>Prohibits the filing of false information.</p> <p>Provides that a round-trip trades violate the FPA. Defines round-trip trade as a transaction or combination of transactions in which a person or other entity simultaneously enters into financially offsetting transactions to sell the same electric energy at the same location, price, quantity and terms so that collectively the purchase and sale transactions themselves result in no financial gain or loss and enters into the contract or arrangement with the intent to deceptively affect reported revenues, trading volumes or prices. (Sec. 1172)</p>	<p>No similar provision.</p> <p>Same as S. 14. (Sec. 16082)</p>	



	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>CONFORMING CHANGES</b>	No similar provision.	Amends FPA to include amendments made in this subtitle to the application of provisions set out in Part II, and in the definition of public utility. (Sec. 16803)	
<b>ENFORCEMENT</b>	Expands scope of who can file complaints and against whom complaints can be filed under the FPA, extends FERC's investigation authority to transmitting utilities, allows utilities to request a rehearing on FERC orders, and increases penalties under the FPA and the Natural Gas Act. (Sec. 1173)	Similar to S. 14, but includes munis and co-ops in complaints provision and increases penalties for the FPA only. (Sec. 16084)  Extends FERC's investigation authority to electric utilities, transmitting utilities and other entities. Also allows FERC to obtain information related to interstate commerce. (Sec. 16092(c))	Expands scope of criminal and civil penalties under the Federal Power Act, and extends investigation authority to include transmitting utilities. (Sec. 209)
<b>REFUND EFFECTIVE DATE</b>	Amends FERC's authority to allow refunds under the FPA as of the date of the filing of a complaint. (Sec. 1174)	Similar to S. 14, but requires FERC to state why a final decision has not been rendered by 60 days after the refund effective date or 180 days after the initiation of a proceeding on a complaint. (Sec. 16091)	Provides that FERC can calculate refunds from overcharges in a sale or transmission rate proceeding at the time of filing of a complaint on such proceeding. (Sec. 204)
<b>CONSUMER DISCLOSURE</b>	No similar provision.	No similar provision.	Requires the FTC to issue rules providing for the disclosure to consumer of price, additional charges, and the type of generation and emissions produced in generating the electricity sold. (Sec. 251)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>CONSUMER PROTECTIONS</b>	<p>Directs the Federal Trade Commission (FTC) to promulgate rules regarding disclosure of consumer information. (Sec. 1181)</p> <p>Directs the FTC to issue rules to prohibit changes of electric utility service without consumer consent (slamming) and sales of services without consumer consent (cramming). (Sec. 1183)</p>	<p>Similar to S. 14, but rules must be issued in accordance with existing law that requires notice to be published in the Federal Register and an opportunity for public participation, as well as gives interested individuals the right to appeal the rulemaking. (Sec. 16093)</p> <p>Similar to S. 14, but does not limit State approval authority to only changes necessary to prevent loss of service. Requires rules to be issued in accordance with existing law, as above. (Sec. 16094)</p>	<p>Requires the Federal Trade Commission to issue rules protecting the privacy of consumer information obtained in connection with sale or delivery of electricity. (Sec. 252)</p> <p>Requires the Federal Trade Commission to prohibit "slamming" and "cramming" in electricity sales to consumers. (Sec. 254)</p> <p>Establishes within the Department of Justice an Office of Consumer Advocacy to represent consumer interests in cases before the FERC. (Sec. 253)</p> <p>Specifies applicable procedures and mechanisms for FTC enforcement. Clarifies State authorities in these areas and limits applicability to exclude small retail sellers of electricity (sales less than 500 million kWh/yr). (Sec. 255-259)</p>
<b>JURISDICTION OVER INTERSTATE SALES</b>	No similar provision.	Expands FERCs refund authority to nonpublic utilities and munis that make spot market sales in violation of FERC rules, excepting small munis or rural co-ops. Grants FERC limited authority to abrogate or modify contracts if necessary to protect the public interest. (Sec. 16092)	
<b>TECHNICAL AMENDMENTS</b>	Corrects technical errors in the FPA. (Sec. 1191)	No similar provision.	

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>MERGER REVIEW</b>	No similar provision.	Requires the Secretary of Energy to assess the extent to which FERC merger review authority duplicates authorities vested in other Federal and State agencies or authorities granted to FERC in throughout the FPA, and to provide recommendations on eliminating unnecessary duplication. Also requires an annual report on merger conditions imposed by FERC. (Sec. 16101)	Requires FERC to review and approve: utility sales of jurisdictional facilities greater than \$10 million; utility mergers and consolidations with facilities of another person; utility purchases of securities of another utility; utility purchases of existing generation not used exclusively for retail sales; and holding company acquisitions of holding companies. Establishes time limits for action on applications, and expands the number of findings to be made before FERC approves a merger. (Sec. 202)
<b>MARKET-BASED RATES</b>	No similar provision.	No similar provision.	Clarifies that FERC may allow or revoke market-based rates based on consideration of a number of factors. (Sec. 203)
<b>RENEWABLE PORTFOLIO STANDARD</b>	No similar provision.	No similar provision.	Requires each retail supplier of electricity to sell a required percentage of new renewable generation, increasing from 1% in calendar year 2005 to 10% in calendar year 2019 and 2020, and not less than 10% in calendar years 2021-2030. Enables suppliers to generate credits for excess renewable generation sold, which can then be banked for future use, or sold to other suppliers to help them meet their requirements. Awards double credits for renewables on Indian land, or generation offsets. (Sec. 264)  Provides for a civil penalty of not more than the lesser of 1.5 cents per kWh, or twice the average market credit cost, if requirement is not met. (Sec. 271)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ECONOMIC DISPATCH</b>	No similar provision.	Requires an annual report on procedures used by electric utilities to operate generation facilities in a manner that produces the lowest cost to reliably serve customers, identifying revisions to such procedures that could improve the ability of nonutility generation resources to sell output. Report must be submitted to Congress and to States, along with recommendations. (Sec. 16111).	
<b>RAINBOW VALLEY INTERCONNECT</b>	No similar provision.	Directs the Secretaries of Agriculture and the Interior to issue all necessary approvals for the siting of a high-voltage transmission line on the border of the Cleveland National Forest in California. The right-of-way may not enter wilderness areas in existence as of the date of enactment. Designates BLM as the lead agency, and requires the Secretary of Agriculture to complete all required environmental reviews and administrative actions required for Forest Service land. Requires all reviews to be completed within one year. (Sec. 30902)	
<b>STUDY OF SITING TRANSMISSION ON AMTRAK RIGHT OF WAY</b>	No similar provision.	No similar provision.	Requires the Secretary of Energy to contact with Amtrak to study the feasibility of building and operating a new electric transmission system on Amtrak right-of-way in the Northeast Corridor. Requires a report to Congress within 270 days. (Sec. 1703)
<b>REGIONAL COORDINATION</b>	No similar provision.	No similar provision.	Authorizes an additional \$1.3 billion in borrowing authority for the Bonneville Power Administration. (Sec. 272)

**RURAL AND REMOTE**

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<p><b>RURAL AND REMOTE COMMUNITY PROGRAMS</b></p>	<p>No similar provision.</p>	<p>No similar provision.</p>	<p>Authorizes \$100 million for each of fiscal years 2003-09 for DOE grants to rural and remote communities for weatherization of homes and buildings, provision of water or sewer services, or acquisition and maintenance of facilities for electric power generation and distribution or bulk fuel distribution. (Sec. 941-947)</p> <p>Authorizes \$20 million for each of fiscal years 2003-09 for USDA rural electrification grants to local units of government or Tribes for increasing energy efficiency, siting or upgrading transmission lines, or modernizing electric facilities. (Sec. 948)</p> <p>Authorizes \$5 million for each of fiscal years 2003-09 to the Denali Commission for power cost equalization. (Sec. 949)</p> <p>Authorizes \$100 million for each of fiscal years 2003-09 for grants to local units of government or Tribes for needs related to rural community development and housing. (Sec. 950)</p>

**CLIMATE CHANGE**

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>SENSE OF THE CONGRESS</b>	No similar provision.	No similar provision.	Expresses sense of the Congress that the U.S. should demonstrate international leadership on climate change by ensuring meaningful emissions reductions; creating flexible mechanisms for technology deployment and emissions trading; and participating in international negotiations. (Sec. 1001)
<b>NATIONAL CLIMATE CHANGE STRATEGY</b>	No similar provision.	No similar provision.	<p>Establishes a National Office of Climate Change Policy within the Executive Office of the President, to be headed by a Senate-confirmed Director.</p> <p>Requires development of a national climate change Strategy that defines interim emission mitigation targets, doubles energy R&amp;D, carries out climate adaptation research, and improves scientific research.</p> <p>Requires a report on the Strategy to be submitted within one year, and updated every four years thereafter. Such report and updates are to be reviewed by the National Academy of Sciences.</p> <p>Requires progress reports to be submitted each year.</p> <p>Sets up an Interagency Task Force to carry out the climate change national strategy. Authorizes \$50 million over ten years for the Office. (Sec. 1011-1014)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>CLIMATE TECHNOLOGY INNOVATION PROGRAM</b>	No similar provision.	No similar provision.	Establishes a new Office of Climate Change Technology within DOE to carry out high-risk, "breakthrough" energy technology R&D that mitigate emissions, or remove or sequester emissions from the atmosphere or emissions streams.  Sets duties for the Office, including participation in an international carbon sequestration experiment. Authorizes \$4.75 billion over ten years. (Sec. 1015)
<b>ADDITIONAL OFFICES</b>	No similar provision.	No similar provision.	Authorizes the establishment of additional offices and activities in other Federal agencies to carry out the national climate change strategy. (Sec. 1016)
<b>CLIMATE SCIENCE AND TECHNOLOGY POLICY</b>	No similar provision.	No similar provision.	Adds advice on climate change to the President and the Director of the Office of National Climate Change Policy as an explicit duty of the Director of the Office of Science and Technology Policy. (Sec. 1021-1022)
<b>REGULATORY REVIEW</b>	No similar provision.	No similar provision.	Requires information on greenhouse gas emissions in connection with a Statement of Energy Effects under Ex. Order 13211. (Sec. 1031)
<b>FEDERAL FACILITIES</b>	No similar provision.	No similar provision.	Requires DOE, EPA, and Commerce to jointly develop methodology for reporting greenhouse gas emissions from Federal facilities, and requires DOE to publish an inventory of such emissions within 18 months of date of enactment, and annually thereafter. (Sec. 1032)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>AGENCY MEMORANDUM OF AGREEMENT</b>	No similar provision.	No similar provision.	Requires the President, acting through the Council on Environmental Quality, to direct the Departments of Commerce, Energy, Transportation and Agriculture and the EPA to enter into a Memorandum of Agreement that clarifies their authority with regards to the comprehensive collection and analysis of data on greenhouse gas emissions related to energy production and use. (Sec. 1103)
<b>NATIONAL GREENHOUSE GAS DATABASE</b>	No similar provision.	No similar provision.	<p>Requires the Departments of Commerce, Energy, Transportation and Agriculture and the EPA to design a national greenhouse gas database, consisting of an inventory of greenhouse gas emissions and a registry of emissions reductions.</p> <p>Requires such agencies to develop regulations for the database, including measures to assign serial numbers to verified emissions reductions and allow a future Congress to ensure baseline protection. (Sec. 1104)</p> <p>Requires participating entities to establish a baseline of emissions and submit annual reports of entity-wide greenhouse gas emissions, both direct and indirect. Requires adequate verification of such reports as to accuracy and completeness, including optional independent third party verification.</p> <p>Requires annual reports on participation in the database. Authorizes such sums as are necessary. (Sec. 1105, 1111)</p>



	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>MEASUREMENT AND VERIFICATION STANDARDS</b>	No similar provision.	No similar provision.	Requires the Departments of Commerce, Energy, Transportation and Agriculture and the EPA to, within one year, jointly develop measurement and verification methods to ensure consistent and accurate record of greenhouse gas emissions and emissions reductions. Provides for public comment and review, and requires regular review and update of such standards. (Sec. 1106)
<b>INDEPENDENT REVIEWS</b>	No similar provision.	No similar provision.	Requires independent review of the database and its operation by the Comptroller General within 5 years of enactment and every 3 years thereafter. Requires review of scientific methods used in the database by the National Academy of Sciences not later than 4 years after date of enactment, and requires update of list of greenhouse gases as needed. (Sec. 1107)  Requires the President to report on any additional needed changes within 3 years of enactment. (Sec. 1110)
<b>REVIEW OF PARTICIPATION</b>	No similar provision.	No similar provision.	Includes a “trigger” that provides that if not more than 60% of total U.S. man-made emissions are represented in the database within five years, mandatory reporting from all entities emitting more than 10,000 metric tons CO2 equivalent (except agriculture) will be initiated. (Sec. 1108)
<b>CIVIL PENALTIES</b>	No similar provision.	No similar provision.	Sets forth civil penalties of not more than \$25,000 per day of violation that may be enforced if participants fail to report their emissions. (Sec. 1109)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>DOE CLIMATE CHANGE R&amp;D</b>	No similar provision.	No similar provision.	Authorizes \$150 million in FY03, increasing to \$230 million in FY06, for DOE climate change science research programs in climate modeling, carbon cycle research, ecological processes, and integrated assessment. Makes conforming amendments to the Federal Nonnuclear Research and Development Act of 1974. (Sec. 1301-1302)
<b>USDA CLIMATE CHANGE R&amp;D</b>	No similar provision.	No similar provision.	Authorizes \$25 million for each of fiscal years 2003 through 2006 for Department of Agriculture research related to carbon sequestration in soils and forests. Authorizes \$10 million for each of fiscal years 2003 through 2006 for development of monitoring programs and carbon sequestration demonstration projects. Authorizes \$20 million for each of fiscal years 2003 through 2007 for pilot programs to measure carbon storage and sequestration. (Sec. 1311-1313)
<b>CLEAN ENERGY TECHNOLOGY EXPORTS</b>	No similar provision.	No similar provision.	Establishes an interagency working group to coordinate and promote U.S. government efforts to open overseas energy markets and transfer U.S. clean energy technology to developing countries, and countries in transition. Requires an annual report describing technology, policy, and market opportunities for international development, demonstration, and deployment of clean energy technology.  Requires all U.S. government entities supporting activities in the energy and environment sectors of such countries to support the transfer of U.S. clean energy technology to the maximum extent practicable. (Sec. 1321)

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>INTERNATIONAL ENERGY TECHNOLOGY DEPLOYMENT</b>	No similar provision.	No similar provision.	Authorizes a \$1 billion, 10-year, International Energy Technology Deployment Program to provide financial assistance in the form of loans or loan guarantees to qualifying deployment projects in developing countries and countries in transition. (Sec. 1322)
<b>GLOBAL CHANGE RESEARCH ACT AMENDMENTS</b>	No similar provision.	No similar provision.	<p>Changes committee name of the Committee that oversees climate science research. Requires membership to be composed of Deputy Secretary-level appointees or their designees. Requires Director of National Office of Climate Change Policy to select chair. (Sec. 1333)</p> <p>Adds a research element to the National Global Change Research Plan to develop predictive tools for planning and decision making purposes. Calls for development of a strategic climate research plan for the 10-year period beginning in 2002. (Sec. 1334)</p> <p>Establishes an Integrated Program Office for the Global Change Research Program in the Office of Science and Technology Policy, which is responsible for interagency coordination and integration of programs, including budget submissions (Sec. 1335).</p> <p>Authorizes not less than \$17 million in annual appropriations for research grants, to be made through NSF at the request of the Committee to fill gaps in research programs. (Sec. 1336)</p> <p>Requires that future national assessments of climate change and its impacts take into account how scientific information developed by the Program can be used for policy decision-making. (Sec. 1337)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>NATIONAL CLIMATE PROGRAM ACT AMENDMENTS</b>	No similar provision.	No similar provision.	<p>Adds a program element to develop methods to improve modeling, prediction, and assessment capabilities to guide national, regional, and local planning and decision-making on land use, water hazards, and related issues.</p> <p>Authorizes \$75 million for each of fiscal years 2002 through 2004 for activities under the National Climate Program Act. (Sec. 1343-1344)</p>
<b>NATIONAL CLIMATE SERVICE</b>	No similar provision.	No similar provision.	Directs the Secretary of Commerce to submit a plan of action to Congress for a National Climate Service within one year of enactment of this Act. (Sec. 1345)
<b>INTERNATIONAL PACIFIC RESEARCH AND COOPERATION</b>	No similar provision.	No similar provision.	Requires the Secretary of Commerce, in cooperation with the NASA Administrator, to conduct international research in the Pacific region to increase understanding of the nature and predictability of climate variability in the Asia-Pacific sector. Authorizes \$1.5 million to NOAA, \$1.5 million to NASA, and \$500,000 for the Pacific ENSO applications center. (Sec. 1346)
<b>REPORT ON GREENHOUSE GAS TRENDS</b>	No similar provision.	No similar provision.	<p>Authorizes the Secretary of Commerce to establish an atmospheric monitoring and verification program for greenhouse gases as part of the National Climate Service.</p> <p>Requires an annual report on levels and trends of greenhouse gas concentrations on local, regional and national scales, including identification of sources covered by the greenhouse gas reporting program authorized under Title XI. (Sec. 1347)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>ARCTIC RESEARCH</b>	No similar provision.	No similar provision.	<p>Authorizes such sums as may be necessary to the Arctic Research Commission for award of grants for scientific research in the Arctic. (Sec. 1348)</p> <p>Provides for the establishment of a joint Commerce/DOE/DOI/NSF/EPA research facility at Barrow, Alaska to support climate change and other scientific research activities in the Arctic. Authorizes \$35 million for planning, design, construction and support of the Center. (Sec. 1373)</p>
<b>ABRUPT CLIMATE CHANGE</b>	No similar provision.	No similar provision.	Authorizes \$10 million for each of fiscal years 2003-05 for NOAA research into potential mechanisms and response to rapid climate change. (Sec. 1349)
<b>OCEAN AND COASTAL OBSERVING SYSTEM</b>	No similar provision.	No similar provision.	Requires the President, through the National Ocean Research Leadership Council, to establish and maintain an ocean and coastal observing system to provide continuous, real-time observations. Authorizes \$235 million in FY03, increasing to \$445 million in FY06. Requires the Council to submit an implementation plan to Congress within 6 months after enactment of this Act. (Sec. 1351-1352)
<b>GREENHOUSE GAS MEASUREMENT STANDARDS</b>	No similar provision.	No similar provision.	<p>Directs the National Institute of Standards and Technology (NIST) to develop measurements, calibrations, standards, and technologies that will enable reduced production of greenhouse gases. (Sec. 1361)</p> <p>Requires the Director of NIST to establish a research program on global climate change standards and processes to provide scientific and technical knowledge applicable to the reduction of greenhouse gases. (Sec. 1363)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>MEASUREMENT TECHNOLOGY DEVELOPMENT</b>	No similar provision.	No similar provision.	<p>Requires the Secretary of Commerce to initiate an interagency effort to develop standards and measurement technologies to calculate greenhouse gas emissions and reductions. (Sec. 1362)</p> <p>Enables the NIST Director, through the Advanced Technology Program, to hold a thematic competition to develop and commercialize technologies to address global climate change by reducing greenhouse gas emissions and atmospheric concentrations.</p> <p>Directs the NIST Director, through the Manufacturing Extension Partnership Program, to develop a program to support the implementation of "green" manufacturing technologies. (Sec. 1364)</p>
<b>AUTHORIZATION OF APPROPRIATIONS</b>	No similar provision.	No similar provision.	Authorizes \$10 million for each of fiscal years 2002 through 2006 for NIST activities under sections 1345, 1351, and 1361 through 1363. (Sec. 1365)
<b>REGIONAL CLIMATE ASSESSMENT AND ADAPTATION</b>	No similar provision.	No similar provision.	<p>Directs the Secretary of Commerce, in coordination with appropriate federal, State, and local governmental entities to conduct regional vulnerability assessments and develop preparedness plans to address a broad array of safety, ecological, and economic impacts related to increased climate variability.</p> <p>Requires a report to Congress within 2 years. Authorizes \$4.5 million for implementation. (Sec. 1371)</p>

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>COASTAL VULNERABILITY AND ADAPTATION</b>	No similar provision.	No similar provision.	Requires the Secretary of Commerce to, within 2 years, conduct regional assessments of the vulnerability of coastal areas to hazards associated with climate change, climate variability, and sea level rise, including an evaluation of social, physical, and economic impacts. Requires submission to Congress, within 3 years, of a National Coastal Adaptation Plan that recommends national and regional strategies for adapting to coastal impacts associated with climate change. Provides for technical planning assistance to eligible States to implement such plans and creates a new coastal response pilot program to provide financial assistance to affected communities. Authorizes \$3 million annually for regional assessments, and \$3 million annually for coastal adaptation grants. (Sec. 1372)
<b>REMOTE SENSING PILOT PROJECTS</b>	No similar provision.	No similar provision.	Establishes a program of NASA/NOAA grants to use remote sensing and other geospatial information to forecast and plan for adaptation to coastal zone and land use changes that may result as a consequence of global climate change or climate variability. Establishes an electronic, internet-accessible database of results. Authorizes \$17.5 million for FY02, increasing to \$25 million for FY06. (Sec. 1381-1382, 1384-1385)
<b>AIR QUALITY RESEARCH, FORECASTS AND WARNINGS</b>	No similar provision.	No similar provision.	Requires the Secretary of Commerce, through NOAA, to conduct regional studies of the air quality within the U.S., and establish a program to provide operational air quality forecasts and warnings for specific regions. Authorizes \$3 million for each of fiscal years 2003-06 for studies, and \$5 million for fiscal year 2003 and such sums as are necessary in subsequent years for forecasts and warnings. (Sec. 1383)

**MISCELLANEOUS PROVISIONS**

	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>TECHNOLOGY ASSESSMENT</b>	No similar provision.	No similar provision.	<p>Amends the National Science and Technology Policy, Organization, and Priorities Act of 1976 to add provisions creating a Science and Technology Assessment Service to provide ongoing science and technology assessment advice to Congress.</p> <p>The Service would have a Congressional Board and a Director and receive administrative support from the Library of Congress.</p> <p>Assessment work would be performed using the services of experts selected in consultation with the National Research Council. (Sec. 1601)</p>
<b>CONSUMER ENERGY COMMISSION</b>	No similar provision.	No similar provision.	<p>Establishes an independent commission to conduct studies of nationwide price spikes in major consumer energy products since 1990, and report to Congress within 180 days of its first meeting. Terminates 30 days after report is submitted. (Sec. 1705)</p>
<b>CRITICAL ENERGY INFRASTRUCTURE PROTECTION</b>	No similar provision.	No similar provision.	<p>Clarifies that energy infrastructure security is part of DOE's mission. Requires DOE to establish programs of financial, technical, and administrative assistance related to critical energy infrastructure security. (Sec. 1802-03)</p> <p>Establishes an advisory committee to review DOE policy and activities to improve energy infrastructure security. (Sec. 1804)</p> <p>Requires DOE to support private-sector efforts to develop best practices and standards for energy infrastructure security. (Sec. 1805)</p>



	<b>S. 14, as amended</b>	<b>H.R. 6, as passed by the House</b>	<b>H.R. 6, as passed by the Senate</b>
<b>COASTAL ENERGY INFRASTRUCTURE SECURITY PROGRAM</b>	No similar provision.	No similar provision.	<p>Establishes a program to carry out activities pursuant to approved plans to secure critical OCS energy infrastructure facilities from threats, or to maintain the safety and operation of critical OCS energy infrastructure facilities in states in proximity to leased OCS tracts (Alaska, Alabama, California, Florida, Louisiana, Mississippi and Texas).</p> <p>Authorizes \$450 million per year from OCS revenues to be allocated by formula. (Sec. 1811)</p>