

COMMONALITIES

Efficiency Provisions	S. 2012	H.R. 8
Government Buildings		
<p>Energy Efficiency in Building Codes</p>	<p>Sec. 1001:</p> <p>1001(a) amends section 303 of the Energy Conservation and Production Act (ECPA) to add certain definitions.</p> <p>1001(b) amends section 304 of ECPA to require that the Secretary of Energy encourage and support the adoption of building energy codes by States, local governments, or Indian tribes that meet or exceed model building energy codes.</p> <p>1001(d) amends section 307 of ECPA to require that the Secretary of Energy support the updating of model building energy codes.</p>	<p>Sec. 3141: Increase transparency and cost-effectiveness in the development of model building energy codes, which set the baseline for energy efficiency in buildings, by ensuring that DOE code change proposals:</p> <ol style="list-style-type: none"> 1) are made available to the public, including calculations on costs and savings; 2) are subject to the official rulemaking process, allowing for public comment; and 3) take into account small business concerns. This section also would prohibit DOE from advocating for certain technologies, building materials or construction practices and requires that any code or proposal supported by the DOE has a payback of 10 years or less.
<p>Retrofitting Schools</p>	<p>Sec. 1003: Directs the Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) to coordinate and disseminate information on existing Federal programs that may be used to help initiate, develop, and finance energy efficiency, renewable energy, and energy retrofitting projects for schools.</p>	<p>Sec. 3131: Amends the Energy Policy and Conservation Act to direct DOE to establish a clearinghouse to disseminate information regarding available programs and financing mechanisms that may be used to help initiate, develop, and finance energy efficiency, distributed generation, and energy retrofitting projects for schools. DOE must:</p> <ol style="list-style-type: none"> (1) consult with appropriate agencies to develop a list of programs and financing mechanisms that are, or may be, used for the projects, and (2) coordinate with appropriate

Retrofitting Schools (cont.)	agencies to develop a collaborative education and outreach effort to streamline communications and promote the programs and financing mechanisms.
Federal building energy and energy efficiency performance standards	<p>Sec. 1010: Amends section 3307 of title 40 of the U.S. Code to allow the Administrator of General Services to use appropriated funds to update the design of a building for which the design has been substantially completed but on which construction has not begun to meet applicable Federal building energy efficiency standards.</p> <p>Sec. 1014: Directs the Secretary of Energy to establish the “Federal Smart Building Program” to demonstrate the costs and benefits of implementing smart building technology and to undertake research and development to address barriers to the integration of such technology.</p> <p>Sec. 1016: 1016(a) amends section 303 of ECPA to expand the scope of building energy efficiency performance standards for new federal buildings to include major renovations.</p> <p>1016(b) amends section 305(a)(3) of ECPA to require the Secretary of Energy to establish more stringent revised Federal building energy efficiency performance standards for new Federal buildings and Federal buildings with major renovations unless demonstrated not to be lifecycle cost effective.</p> <p>Sec. 1017: Directs the head of each Federal agency to reduce their building energy intensity by 2.5 percent per year for fiscal years 2016 through 2025.</p> <p>Sec. 3116: Expand the scope of existing energy standards for new federal buildings to cover major renovations. It would also ensure that significant alterations and additions to federal buildings (i.e., major renovations) meet minimum efficiency levels unless demonstrated not to be life-cycle cost-effective. Also, it would require the use of commissioning of large federal buildings to ensure that their energy systems are operating as designed.</p> <p>Sec. 3117: Sets energy efficiency performance standards and creates a certification system and level for federal buildings.</p>

<p>Federal building energy efficiency performance standards (cont.)</p>	<p>Sec. 1019: Amends section 436(h) of EISA 2007 to require the Federal Director of the Office of Federal High-Performance Green Buildings within the General Services Administration to identify and provide to the Secretary of Energy with a list of certification systems most likely to encourage a comprehensive and environmentally sound approach to certification of green buildings.</p>	
<p>Smart energy and water efficiency pilot program</p>	<p>Sec 4102: Amends Title IX of EPACT 2005 to establish a Smart Energy and Water Efficiency Pilot Program at DOE to provide grants to eligible utilities, municipalities, water districts as well as Indian tribes and Alaska Native villages.</p>	<p>Sec. 3161: Authorizes a pilot program to increase the effectiveness of water distribution networks by delivering better quality water while using less energy. Under the pilot program, a utility, municipality, water district, or other authority that provides drinking water, water recycling, or water reuse services would be able to compete for DOE project funds. Competitive grant selections for these projects will be based on a project’s anticipated energy and costs savings; the novelty of technology employed; how well it integrates next generation sensors, software, analytics, and management tools; the predicted cost-effectiveness of the project due to energy efficiency savings, water savings or reuse, and averted infrastructure costs; and how the technology can be scalable and deployed across geographic regions.</p>
<p>Information Technology Standards</p>		
<p>Energy-efficient and energy-saving information technologies</p>	<p>Sec. 1009: Amends section 543 of NECPA by adding a section that directs the Director of the Office of Management and Budget (OMB) to collaborate with each Federal agency to develop an implementation strategy for the maintenance, purchase, and use of energy-efficient and energy-saving information</p>	<p>Sec. 3111: Requires Federal agencies to coordinate with the Office of Management and Budget (OMB), DOE, and the Environmental Protection Agency (EPA) to develop an implementation strategy – that includes best practices and measurement and verification techniques – for the</p>

<p>Energy-efficient and energy-saving information technologies (cont.)</p>	<p>technologies.</p>	<p>maintenance, purchase, and use of energy-efficient and energy saving information technologies. OMB would be required to track and report on each agency's progress.</p>
<p>Energy efficient data centers</p>	<p>Sec. 1011: Amends section 453 of the Energy Independence and Security Act (EISA) of 2007 to update the Voluntary National Information Program. The section requires the development of a metric for data center energy efficiency, and the Secretary of Energy and Director of OMB to maintain a data center energy practitioner program and an open data initiative for Federal data center energy usage.</p>	<p>Sec. 3112: Seeks to improve the energy efficiency of Federal data centers by, among other items, requiring DOE to update a 2007 report on data center energy efficiency and maintain a data center energy practitioner certification program. DOE also would establish an open data initiative to help share best practices and support further innovation, and develop a metric that measures data center energy efficiency.</p>
<p>Appliances and Manufacturing</p>		
<p>Standards for furnaces</p>	<p>Sec. 1103: Amends section 325(f)(4) of EPCA to make any action regarding a final rule contingent upon a determination by an advisory group convened by the Secretary of Energy regarding whether a nationwide requirement for a condensing furnace efficiency standard is technically feasible and economically justified.</p>	<p>Sec. 3123: Provides gas furnace stakeholders the opportunity to continue negotiations to facilitate the proposal for adoption of gas furnace standards that enjoy consensus support, while not delaying the current rulemaking, except to the extent necessary to provide such opportunity.</p>
<p>Energy Star Program</p>	<p>Sec. 1104: Amends section 324A of EPCA by directing the Administrator to revise the certification requirements for Energy Star program partners that manufacture consumer electronic products and have complied with all program requirements for at least 18 months.</p>	<p>Sec. 3124: Promote continued development of energy efficient appliances through the Energy Star Program by deterring class action lawsuits that could undermine participation in the program.</p>
<p>Voluntary verification programs for air conditioning, furnace, boiler, heat pump, and weather heater products</p>	<p>Sec. 1106: Amends section 326(b) of EPCA requires DOE to recognize certain qualified voluntary, independent certification programs for energy conservation standards for air conditioning, furnace, boiler, heat pump, and water heater</p>	<p>Sec. 3122: Requires the DOE to recognize voluntary verification programs for air conditioning, furnace, boiler, heat pump, and water heating products to demonstrate compliance with DOE energy efficiency and conservation standards and the</p>

<p>Voluntary verification programs for air conditioning, furnace, boiler, heat pump, and weather heater products (cont.)</p>	<p>products, and to rely on these programs to verify the performance rating of these products, provide annual reports of all test results, and maintain a publicly available list of all certified models.</p>	<p>Energy Star program.</p>
<p>WaterSense</p>	<p>Sec. 1023: Codifies the voluntary WaterSense program at EPA. It specifies the categories of products that are eligible for WaterSense listing and also the guidelines for developing criteria and reviewing standards. It also clarifies the distinction of authorities between the WaterSense and Energy Star programs should any product be eligible under both programs.</p>	<p>Sec. 3162: Codifies the voluntary WaterSense program at EPA. It specifies the categories of products that are eligible for WaterSense listing and also the guidelines for developing criteria and reviewing standards. It also clarifies the distinction of authorities between the WaterSense and Energy Star programs should any product be eligible under both programs.</p>

<p>Infrastructure & Supply Provisions</p>	<p>S. 2012</p>	<p>H.R. 8</p>
<p>Cybersecurity</p>	<p>Sec. 2001: adds a new section, 224, to the Federal Power Act (FPA). The new section 224(b) provides the Secretary of Energy with emergency authority to protect the bulk-power system (BPS) from cybersecurity threats. The new section 224(c) specifies the duration of the emergency authority. The new section 224(d) directs the Federal Energy Regulatory Commission (FERC or Commission) to adopt regulations to permit entities subject to an emergency order under this section to seek recovery of prudently-incurred costs required to implement actions ordered by the Secretary, to designate critical electric infrastructure information (CEII), to prohibit the unauthorized disclosure of CEII, and to ensure there are appropriate sanctions in place for the knowing and willful disclosure of such protected information by FERC personnel or agents of the Commission. The new</p>	<p>Sec. 1106: Directs DOE to establish a voluntary Cyber Sense program to identify and promote cyber-secure products and technologies intended for use in the bulkpower system, including products relating to industrial control systems, such as supervisory control and data acquisition systems.</p>

<p>Cybersecurity (cont.)</p>	<p>subsection 224(d)(1) protects CEII from disclosure under federal or state sunshine laws.</p> <p>Sec. 2002: Codifies the DOE as the Sector-Specific Agency for cybersecurity for the energy sector and specifies the DOE's duties with regard to that role. Directs the Secretary to carry out a cybersecurity-related research, development, and demonstration program; perform pilot demonstration projects for new technologies; and develop workforce curricula for energy sector-related cybersecurity.</p> <p>Sec. 2303: Directs the Secretary of Energy to establish a grant program to carry out eligible projects related to the modernization of the electric grid and requires the development of a cybersecurity plan and the performance of privacy risk analysis for those projects.</p>	
<p>Grid reliability and modernization</p>	<p>Sec. 2301: Directs the Secretary of Energy to conduct a research, development, and demonstration program for electric grid energy storage to address challenges identified in the 2013 DOE Strategic Plan for Grid Energy Storage.</p> <p>Sec. 2302: Requires the Secretary of Energy to establish a collaborative process to develop model grid architecture and a set of future scenarios for the electric system to examine the impacts of different combinations of resources and then determine whether the creation of any additional standards for ensuring the interoperability of the grid system and associated communications networks are required.</p> <p>Sec. 2305: Requires the Secretary of Energy to submit to Congress within two years after</p>	<p>Sec. 1102: Resolves a conflict between the Federal Power Act and environmental laws and regulations in order to avoid forcing electric generators from choosing between complying with an emergency order from the Department of Energy (DOE) or violating an environmental obligation.</p> <p>Sec. 1112: States the United State's priorities with respect to modernization and security of energy supplies.</p> <p>Sec. 1113: Directs the DOE to present a report on methods to increase grid resilience to Congress within 4 months of the bill's enactment.</p>

<p>Grid reliability and modernization (cont.)</p>	<p>enactment a report that includes an evaluation of the performance of the electric grid in light of metrics to be developed and a description of the costs and benefits associated with certain evaluated scenarios developed under section 2302.</p> <p>Sec. 4301: Amends section 215 of the FPA to require regional reliability entities to submit to Congress and FERC within six months after enactment, and every three years thereafter, a report that describes the state of and prospects for electric reliability within the region. With respect to major federal rules that may significantly affect the reliable operation of the bulk power system, the regional reliability entities shall submit to FERC, for transmittal to the agency issuing the rule, a statement on the impact of the proposed rule on the reliable operation of the bulk power system – a Reliability Impact Statement (RIS). The Agency issuing the rule shall consider the RIS and include a detailed response in the final rule.</p> <p>Sec. 4303: Amends section 202(c) of the FPA to provide, subject to exceptions, a waiver of liability for actions carried out in compliance with an order under that section or under section 224(b)(1). This would include generation, delivery, interchange, or transmission of electric energy ordered to be provided during a war or to meet an emergency such as an imminent threat to electric reliability.</p>	
<p>Reliability and Performance Assurance in Regional Transmission Organizations</p>	<p>Sec. 2310: Requires Transmission Organizations to submit a report to FERC within six months identifying barriers to the deployment of distributed energy systems and micro-grid</p>	<p>Sec. 1110: Amend the Federal Power Act to require each regional transmission organization (RTO) and independent system operator (ISO) that operates a capacity</p>

<p>Reliability and Performance Assurance in Regional Transmission Organizations (cont.)</p>	<p>systems, as well as potential changes to the operational requirements for, or the charges associated with, the interconnection of these resources to the Transmission Organization.</p> <p>Sec. 4302: Requires Transmission Organizations to submit a report to the FERC within six months that identifies, describes, and evaluates the electric capacity resources available to the Transmission Organization; assesses the current and projected state of reliability; and assesses whether and to what extent the market rules of the Transmission Organization meet a series of criteria related to wholesale electric prices, diversity of generation, and availability of self-supply of electric capacity resources by public power entities.</p>	<p>market to provide to FERC an analysis of how: 1) such market utilizes competitive market forces in procuring capacity resources; and 2) the structure of such market includes resource-neutral performance criteria that ensure the procurement of sufficient capacity from physical generation facilities that have certain reliability attributes, such as fuel on-site, dual fuel capability, and contractual obligations that ensure adequate fuel supply to enable operation for an extended period of time. After such an analysis is submitted, FERC is required to submit to Congress a report containing an evaluation of whether the structure of such market, as detailed in the analysis, meets the required criteria and, if it does not, provide recommendations with respect to the procurement of sufficient capacity meeting the identified reliability attributes.</p>
<p>Natural Gas / LNG</p>	<p>Sec. 2201: 2201(a) requires the Secretary of Energy to issue a final decision, approving or disapproving, any application to export natural gas to countries that do not have free trade Agreements with the United States no later than 45 days after the FERC or Maritime Administration has concluded the review required by the National Environmental Policy Act of 1969 (NEPA).</p> <p>2201(c)(1) grants, to the U.S. Court of Appeals for the District of Columbia Circuit or the circuit in which the liquefied natural gas export facility will be located, original and exclusive jurisdiction over any civil action for the review of an order issued by the Secretary of Energy with respect to such an application or the Secretary's failure to issue a final</p>	<p>Sec. 1101: Reinforces the Federal Energy Regulatory Commission's (FERC) role as the lead agency for siting interstate natural gas pipelines. This section would require FERC to identify all agencies considering an aspect of an application and set the schedule for review, including a deadline for a final decision. To ensure that timely decisions are made and that the responsibilities of each Federal and State agency are met when making decisions, FERC would be required to coordinate its efforts and make a recommendation on the scope of the environmental review. Cooperating agencies are directed to carry out reviews concurrently, identifying any issues of concern that may delay or prevent an agency from meeting the schedule established by FERC, and giving deference</p>

<p>Natural Gas / LNG (cont.)</p>	<p>decision on such an application.</p> <p>2201(c)(3) provides for expedited consideration of civil actions brought under the section, and, in the case of covered applications.</p> <p>2201(c)(4) provides for the transfer of petitions for review upon the motion of an applicant.</p> <p>Sec. 2202: Amends section 3 of the Natural Gas Act to require DOE to collect data on exports of liquefied natural gas, and to require that this data be made public.</p> <p>Sec. 3102: Requires the Secretary of Energy submit within 1 year of enactment a study on the regional economic impacts, including on the manufacturing sector and other issues, of exporting liquefied natural gas. Requires the Secretary to consult the National Association of Regulatory Utility Commissioners and the National Association of State Energy Officials.</p> <p>Sec. 3103: Designates the FERC as the lead agency for all Federal authorizations and NEPA compliance related to natural gas transportation; expresses the sense of Congress that all such authorizations should be issued no later than 90 days after applications are deemed complete, and directs FERC to establish an interagency schedule and to refer all interagency disputes to the CEQ for prompt resolution; directs the Commission to maintain consolidated records of all relevant proceedings, and requires other agencies to defer to FERC and to undertake concurrent reviews if possible; requires any agency that does not adhere to the schedule to notify Congress and the FERC of</p>	<p>to FERC on the scope of the environmental review when appropriate and in accordance with applicable Federal law. If issues arise, the Commission may forward them to the heads of the relevant agency for resolution. In cases where there is a failure to meet the schedule that is established by FERC, the head of the relevant agency would notify Congress and set forth a recommended implementation plan to ensure a final decision reached. This section also directs FERC to track, and make available to the public on its website, information related to the review of applications requiring multiple Federal authorizations.</p> <p>Sec. 2005: Streamline the regulatory process for authorizing U.S. LNG exports by establishing a 30 day deadline for DOE to act on applications at the conclusion of the review required by the National Environmental Policy Act.</p> <p>Sec. 2006: Bars the denial of a permit for export facilities of bulk commodities until all required reviews are completed.</p> <p>Sec. 5008: Directs the Secretaries of Energy and Commerce to identify legal and regulatory barriers that delay, prohibit, or impede the export of natural gas (among other fossil fuels), estimate the economic impacts of such barriers, and submit its findings to Congress.</p>
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Natural Gas / LNG (cont.)	<p>its failure and provide a plan to rectify; and requires the FERC to make publicly available the updated schedule for each application with points of contact, expected date of completion, and explanations of delay.</p>	
Dams and Hydropower	<p>Sec. 3001: Amends the FPA by designating the FERC as the lead agency to set a binding schedule and coordinate all needed federal authorizations in order to address hydropower permitting backlogs; authorizes the Chairman of the CEQ to resolve any interagency disputes to ensure timely participation and decision-making by the resource agencies; makes improvements to the trial-type hearing process established in EFACT 2005, including requiring the FERC's existing Administration Law Judges to preside over the hearings; and requires FERC to maintain an official consolidated record of a licensing proceeding and directs the Commission to establish a voluntary pilot program to consider a region-wide approach to hydropower licensing.</p> <p>Sec. 3002: Extends the incentives for hydroelectric production and efficiency improvements contained in EFACT 2005 through Fiscal Year 2025.</p> <p>Sec. 3003: Reinstates the FERC hydropower license for Clark Canyon Dam in Montana and extends the project start time for construction for three years.</p> <p>Sec. 3004: Authorizes the FERC to extend the project start time for construction of the Gibson Dam in Montana for six years.</p> <p>Sections 10341-10346: Extend or authorize certain specific hydroelectric projects</p>	<p>Sec. 1201: Amend the FPA to require FERC to minimize infringement on the exercise and enjoyment of property rights in issuing hydropower licenses.</p> <p>Sec. 1202: Authorize FERD to extend the project started for construction of the W. Kerr Scott Dam in North Carolina for 6 years.</p> <p>Sec. 1203: Facilitate the development of new hydropower infrastructure at existing non-powered dams by authorizing FERC to issue exemptions for qualifying facilities. To Qualify under this section, a new hydropower facility must be located at an existing non-powered dam or similar infrastructure and must not, among other criteria, materially change release regimes or operations of the existing non-power dam or other infrastructure.</p> <p>Sec. 1205: Updates licensing studies for future projects and establishes a basin-wide or regional review prior to licensing.</p> <p>Sec. 1206: Defines closed-loop pumped storage projects and provides conditions for licensing.</p> <p>Sec. 1207: Amend the Federal Power Act to require FERC to minimize infringement on the exercise and enjoyment of property rights in issuing hydropower licenses.</p> <p>Sec. 1208: Promotes hydropower development at existing nonpowered dams</p>

Dams and Hydropower (cont.)	Sec. 10351: Directs FERC to identify and determine the market, procurement, and cost recovery mechanism for pumped storage hydropower	Sec. 8001-8006: Extends time for various FERC dam projects
Marine Hydrokinetic	<p>Sec. 3013: Amends section 632 of EISA 2007 to revise the definition of marine hydrokinetic energy, broadening it beyond only electrical energy.</p> <p>Sec. 3014: Amends both EPACT 2005 and EISA 2007 to revise DOE’s authorizations for research, development, and demonstration programs and commercial application efforts involving marine hydrokinetic technology to cover current, tidal, wave, and thermal technologies. The amendments define allowable research areas, coordinate research, and allow for support of in-water demonstrations of technologies and for partnerships with international entities, research centers, and businesses.</p> <p>Sec. 3015: Amends EISA 2007 to authorize the National Marine Renewable Energy Research, Development and Demonstration Centers to participate in demonstration projects, support in-water testing, support arrays of technology devices, and serve as information clearinghouses.</p>	<p>Sec. 7001: Amends section 632 of EISA 2007 to revise the definition of marine hydrokinetic energy, broadening it beyond only electrical energy.</p> <p>Sec. 7002: Amends both EPACT 2005 and EISA 2007 to revise DOE’s authorizations for research, development, and demonstration programs and commercial application efforts involving marine hydrokinetic technology to cover current, tidal, wave, and thermal technologies. The amendments define allowable research areas, coordinate research, and allow for support of in-water demonstrations of technologies and for partnerships with international entities, research centers, and businesses.</p> <p>Sec. 7003: Amends EISA 2007 to authorize the National Marine Renewable Energy Research, Development and Demonstration Centers to participate in demonstration projects, support in-water testing, support arrays of technology devices, and serve as information clearinghouses.</p>
Electricity Market Accountability	Sec. 4302: Requires Transmission Organizations to submit a report to the FERC within six months that identifies, describes, and evaluates the electric capacity resources available to the Transmission Organization; assesses the current and projected state of reliability; and assesses whether and to what extent the market rules of the Transmission Organization meet a series of criteria related to wholesale electric prices, diversity of	<p>Sec. 3221: Requires the Government Accountability Office to study whether and how the market rules, practices, and structures of regional transmission organizations produce rates that are just and reasonable.</p> <p>Sec. 3211: Requires FERC to establish an Office of Compliance Assistance and Public Participation headed by a Director who shall be responsible for promoting improved</p>

<p>Electricity Market Accountability (cont.)</p>	<p>generation, and availability of self-supply of electric capacity resources by public power entities.</p> <p>Sec. 4501: Amends section 205 of the DOE Organization Act to require EIA, in cooperation with the Commodity Futures Trade Commission (CFTC), to collect data on physical oil inventories and other physical oil assets owned by the 50 largest traders of oil contracts as determined by the CFTC. The new section 205 (p) establishes a Financial Market Analysis Office within EIA.</p> <p>Sec. 4502: Establishes a Working Group on Energy Markets composed of high-level agency officials chaired by the Secretary of Energy. The Working Group shall investigate the effects of financial investment in energy commodities and issue recommendations to the President and Congress if necessary.</p> <p>Sec. 4503: Requires the Working Group on Energy Markets to conduct a study about the pricing of crude oil and refined products and to provide to the Congressional committees of jurisdiction recommendations concerning Federal oversight and regulatory action related to transparency and excessive speculation.</p>	<p>compliance with Commission rules and orders by, among other things, providing entities regulated by the Commission the opportunity to obtain timely compliance guidance; making recommendations with respect to market behavior and enforcement; issuing reports and guidance; and performing outreach to regulated community.</p> <p>Sec. 3222: Amends section 203 of the Federal Power Act to include a minimum monetary threshold of \$10,000,000 for merger and consolidation “acquisitions” of FERC jurisdictional electric transmission facilities. Doing so would mirror the existing \$10,000,000 minimum monetary threshold set forth in the other three subsections of section 203.</p>
<p>Carbon Capture, Utilization, and Sequestration Technologies</p>	<p>Sec. 4602: Establishes a Carbon dioxide capture technology prize, along with an advisory board, to award competitive technology financial awards for carbon dioxide capture</p>	<p>Sec. 1109: Permit the continued cost-competitive use of coal by advancing clean coal research and technology—specifically carbon capture, utilization, and sequestration (CCUS) technologies—towards large scale demonstration and commercial use. This section also would increase accountability at DOE with respect to CCUS research by</p>

<p>Carbon Capture, Utilization, and Sequestration Technologies (cont.)</p>		<p>directing the agency to evaluate all CCUS projects (that have been awarded funds by DOE) every 2 years.</p>
<p>Ethane Storage</p>	<p>Sec. 3106: Directs the Secs. of Energy and Commerce to conduct a feasibility study on ethane storage and distribution hubs in the Marcellus, Utica, and Rogersville shale plays</p>	<p>Sec. 1111: Directs the Secretary of Energy to conduct a study on the feasibility of establishing an ethane storage and distribution hub.</p>
<p>Critical Minerals</p>	<p>Sec. 3303: Requires the Secretary of the Interior, acting through the Director of the USGS, to establish a methodology for the designation of critical minerals based on the potential for supply disruptions and the importance of their use; and requires the list of critical minerals to be reviewed and updated at least every three years</p> <p>Sec. 3304: Requires the Secretary of the Interior, in coordination with State geological surveys, to identify and quantify critical mineral resources throughout the United States within four years; and requires a report on the status of geological surveying for any mineral on which the United States is more than 25 percent import dependent, but which is not designated as a critical mineral.</p> <p>Sec. 3305: Outlines a series of performance improvements and reporting requirements to reduce delays in the federal permitting process for mines that will produce critical minerals.</p> <p>3305(c) requires the development of a performance metric to evaluate progress made in improving permitting efficiency.</p> <p>3305(e) directs OMB to include mining projects on the Federal Infrastructure Projects Permitting</p>	<p>Adopted from: H.R. 1937 - National Strategic and Critical Minerals Production Act</p> <p>Sec. 3011: Deems a domestic mine that will provide strategic and critical minerals to be an "infrastructure project" as described in Presidential Order "Improving Performance of Federal Permitting and Review of Infrastructure Projects" dated March 22, 2012.</p> <p>Sec. 3012: Sets forth the responsibilities of the lead agency (federal, state, local, tribal, or Alaska Native Corporation) with responsibility for issuing a mineral exploration or mine permit with respect to project coordination, agency consultation, project proponents, and contractors.</p> <p>Deems the requirements of National Environmental Policy Act of 1969 to have been satisfied if the lead agency determines that any state or federal agency acting pursuant to state or federal statutory or procedural authorities, has or will address specified factors.</p> <p>Requires the lead agency, if it cannot make such a determination, and at a project proponent's request, together with cooperating and other agencies involved in the permitting process to enter into an agreement with the project proponent that sets time limits for</p>

<p>Critical Minerals (Cont.)</p>	<p>Dashboard.</p> <p>3305(f) requires a report from the Small Business Administration on regulations affecting the critical minerals industry.</p> <p>Sec. 3306: Requires Federal Register notices to be completed within 45 days, prepared at the organization level of the agency, and transmitted from the office in which the documents or meetings are held or the activity is initiated.</p> <p>Sec. 3307: Directs the Secretary of Energy to conduct a program of research and development to promote the efficient production, use, and recycling of critical minerals throughout the supply chain, and to develop alternatives to critical minerals that do not occur in significant abundance in the United States.</p> <p>Sec. 3308: Directs the Secretary of the Interior, in consultation with the EIA, to establish a forecasting capability for critical mineral reliance, production, price, recycling, and related factors; requires a new "Annual Critical Minerals Outlook;" and protects proprietary data</p> <p>Sec. 3310: Reauthorizes the program created by section 351 of EPACK 2005</p> <p>Sec. 3311 Repeals the National Critical Materials Act of 1984, makes conforming amendments, and provides two savings clauses related to the effect of the critical minerals subtitle.</p>	<p>each part of the permitting process.</p> <p>Applies this Act to any mineral exploration or mine permit for which an application was submitted before enactment of this Act if the applicant so requests in writing. Requires the lead agency to begin implementing this Act with respect to such application within 30 days after receiving such a request.</p> <p>Requires the lead agency, with respect to strategic and critical minerals within a federally administered unit of the National Forest System, to: (1) exempt from federal regulations governing Special Areas all areas of identified mineral resources in Land Use Designations (other than Non-Development Land Use Designations); (2) apply such exemption to all additional routes and areas that the agency finds necessary to facilitate the construction, operation, maintenance, and restoration of the areas of the identified mineral resources; and (3) continue to apply such exemptions after approval of the Minerals Plan of Operations for the unit.</p> <p>Sec. 3013: Declares the priority of the lead agency, in evaluating and issuing any mineral exploration or mine permit, is to maximize mineral resource development while mitigating environmental impacts, so that more of the mineral resource can be brought to the market place.</p> <p>Sec. 3014: Prescribes the Federal Register notice process for mineral exploration and mining projects. Requires each notice to undergo any required reviews within the Department of the Interior or the Department of</p>
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Critical Minerals (cont.)

Agriculture and to be published in its final form in the Federal Register at least 30 days after its initial preparation, absent any extraordinary circumstance or except as otherwise required by any Act of Congress.

Sec. 3022: Bars a civil action claiming legal wrong caused by an agency action affecting a mineral exploration or mine permit unless such claim is filed no later than 60 days after the date of the final federal agency action to which it relates.

Sec. 3023: Authorizes the holder of a mineral exploration or mine permit to intervene as of right in any such civil action by a person affecting rights or obligations of the permit holder under the permit.

Sec. 3024: Requires the court to hear and determine any such civil action as expeditiously as possible.

Sec. 3025: Prohibits the court from granting or approving prospective relief unless it finds that such relief is narrowly drawn, extends no further than necessary to correct the violation of a legal requirement, and is the least intrusive means necessary to correct such violation.

Sec. 3026: Declares inapplicable to such a civil action specified requirements of the Equal Access to Justice Act relating to award of costs and fees to a prevailing plaintiff. Prohibits payment from the federal government for court costs of a party in such a civil action, including attorneys' fees and expenses.

North American Continental Security	S. 2012	H.R. 8
Coordination with Canada and Mexico	Sec. 2203: Requires the Energy Information Administration (EIA) to collaborate with Mexican and Canadian officials to improve the collection of cross-border energy data and provide periodic updates to the Congressional committees of jurisdiction.	Sec. 2003: Directs the Secretary of Energy to report to Congress with a plan to improve planning and coordination with Canada and Mexico to enhance energy integration, strengthen North American energy security, and promote efficiencies; and improve collaboration with Caribbean and Central American partners on energy security.

Workforce Development	S. 2012	H.R. 8
Workforce Development	<p>Sec. 3309: Provides for a workforce assessment, curriculum development, and programs related to critical minerals at institutions of higher education.</p> <p>Sec. 3601: Establishes the 21st Century Energy Workforce Advisory Board at DOE to develop a strategy for the support and development of a skilled workforce, including underrepresented populations, to meet current and future energy sector needs.</p> <p>Sec. 3602: Establishes a four year pilot program to award competitive grants for job training programs that lead to an industry-recognized credential.</p> <p>Sec. 4201: Amends section 971(b) of EPACT 2005 to authorize the DOE's Office of Science to carry out research, development, demonstration, and commercial applications activities. Subsection (b) reauthorizes the Advanced Research Projects Agency – Energy (ARPA-E) and provides additional protection for program participants' proprietary information</p>	<p>Sec. 9001: Prioritizes energy and manufacturing job training and establishes a clearinghouse within DOE to maintain information and provide technical assistance</p> <p>Sec. 9002: Requires DOE to issues a progress report 5 years after enactment updating the Committees of jurisdiction</p>

Future of Industry Program	<p>Sec. 1201(b): Amends section 452 of EISA 2007 to add the “Future of Industry Program.” Directs Industrial Assessment Centers to coordinate with other Federal manufacturing programs, National Laboratories, and energy service and technology providers, and direct DOE’s Office of EERE to provide onsite technical assessments to manufacturers seeking efficiency opportunities. Directs the Secretary to pay for the Federal share of internship programs associated with implementation of the recommendations.</p>
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Natural Resources	S. 2012	H.R. 8
Land Conveyance	<p>Secs. 10001-10008: Land exchanges and boundary adjustments to various properties, including Arapaho National Forest, Craggs, CO, Cooper Spur, and Black Hills National Cemetery</p>	<p>Secs. 6001-26036: Contain a multitude of provisions pertaining to boundary adjustments (such as the Arapaho National Forest), land exchanges (such as Craggs, CO), and calls for studies for various national areas</p>
Sportsmen’s and Recreational Usage	<p>Secs. 10201-10262: Contain provisions pertaining to sportsmen’s access to federal lands, filming on federal lands, various hunting activities, and fish and wildlife conservation</p>	<p>Secs. 2001-2212: Incorporate H.R. 2406, the Sportsmen’s Heritage and Recreational Enhancement Act (the SHARE Act) into the bill, which revises a variety of existing programs to expand access to, and opportunities for, hunting, fishing, and recreational shooting</p>

Provisions Specific to S. 2012
 The Energy Policy Modernization Act of 2016

Title I - Efficiency

Section	Description
Subtitle A -- Buildings	
Sec. 1002 - Budget-neutral demonstration program for energy and water conservation improvements at multifamily residential units	Directs the Secretary of Housing and Urban Development (HUD) to conduct a pilot project that demonstrates the use of budget-neutral, performance-based agreements for energy or water conservation improvements in HUD multifamily housing.
Sec. 1004 - Energy efficiency retrofit pilot program	Directs the Secretary of Energy to establish a pilot program to award grants for the purpose of retrofitting nonprofit buildings with energy-efficiency improvements.
Sec. 1005 - Utility energy service contracts	Amends section 546 of the National Energy Conservation Policy Act (NECPA) to extend the maximum potential contract period of utility energy service contracts from 10 to 25 years.
Sec. 1006 - Use of energy and water efficiency measures in Federal buildings	Amends contracting authority and reporting in NECPA to encourage Federal agencies to enter into energy savings performance contracts and utility energy service contracts to implement energy and water conservation measures at Federal buildings. Section 1006(g) specifies that the term "federal building" does not include a dam, reservoir, or hydropower facility owned or operated by a Federal agency.
Sec. 1007 - Building training and assessment centers	Directs the Secretary of Energy to provide grants to institutions of higher education and Tribal Colleges or Universities to establish building training and assessment centers.
Sec. 1008 - Career skills training	Directs the Secretary of Energy to provide grants to eligible entities to cover a portion of the cost of career skills training programs that lead to students receiving an industry-related certification for the installation of energy efficient building technologies.
Sec. 1012 - Weatherization Assistance Program	1012(a) amends section 422 of ECPA to reauthorize the Weatherization Assistance Program. 1012(b) adds a new section 414C to ECPA to require the Secretary of Energy to provide competitive grants to nonprofit organizations with a record of making energy efficient improvements to conduct housing energy retrofits for low-income persons.

Sec. 1013 - Reauthorization of State energy program	Amends section 365(f) of Energy Policy Conservation Act (EPCA) to reauthorize the State Energy Program.
Sec. 1015 - Repeal of fossil phase-out	Amends section 305(a)(3) of ECPA to repeal the requirement that new Federal buildings and Federal buildings undergoing major renovations phase out fossil fuel-generated energy consumption by 2030.
Sec 1018 - Certification for green buildings	Amends section 305 of ECPA to direct the Secretary of Energy to determine which certification systems for green commercial and residential buildings are the most likely to encourage a comprehensive and environmentally sound approach to the certification of green buildings.
Sec. 1020 - Evaluation of potentially duplicative green building programs within Department of Energy	Requires the Secretary of Energy to evaluate potentially duplicative green building programs within the DOE, and to determine if there are ways to eliminate overlap, improve coordination, and increase their effectiveness.
Sec. 1021 - Study and report of energy savings benefits of operational efficiency programs and services	Requires the DOE to conduct a study that results in a report to quantify the energy savings benefits of operational efficiency programs and services for commercial, institutional, industrial, and governmental entities
Subtitle B -- Appliances	
Sec. 1101 - Extended product system rebate program	Directs the Secretary of Energy to establish a rebate program to encourage the replacement of energy inefficient electric motors.
Sec. 1102 - Energy efficient transformer rebate program	Directs the Secretary of Energy to establish a rebate program to encourage the replacement of energy inefficient transformers.
Sec. 1105 - Energy conservation standards for commercial refrigeration equipment	Postpones the implementation of new DOE energy efficiency standards for specific types of commercial refrigerators that conflict with new regulations from the Environmental Protection Agency (EPA) that phase out the use of certain refrigerants. This delay allows affected manufacturers time to redesign their refrigerators to meet requirements from both agencies.
Subtitle C -- Manufacturing	
Sec. 1201 - Manufacturing energy efficiency	Amends section 452 of EISA 2007 to add the "Future of Industry Program" and "Sustainable Manufacturing Initiative." These programs direct Industrial Assessment Centers to coordinate with other Federal manufacturing programs, National Laboratories, and energy service and technology providers, and direct DOE's Office of EERE to

Sec. 1201 - Manufacturing energy efficiency (cont.)	provide onsite technical assessments to manufacturers seeking efficiency opportunities.
Sec. 1202 - Leveraging existing Federal agency programs to assist small and medium manufacturers	Directs the Secretary of Energy to expand the scope of technologies covered by the Industrial Assessment Centers of the Department to include smart manufacturing technologies and practices and equip the Centers' Directors with tools and training to provide technical assistance in smart manufacturing to manufactures.
Sec. 1203 - Leveraging smart manufacturing infrastructure at National Laboratories	Directs the Secretary of Energy to study and implement ways for small and medium manufacturers to access the high-performance computing facilities at National Laboratories
Subtitle D -- Vehicles	
Sec. 1306 - Vehicle Research and Development Program	Authorizes a program of basic and applied research, development, engineering, demonstration, and commercial application activities for materials, technologies, and processes that could reduce petroleum use in passenger and commercial vehicles
Sec. 1307 - Manufacturing	Authorizes a program of research, development, engineering, demonstration, and commercial application for advanced vehicle manufacturing technologies and practices.
Sec. 1308 - Medium- and Heavy-Duty Commercial and Transit Vehicles Program	Authorizes a program of cooperative research, development, demonstration, and commercial application activities on advanced technologies for medium- to heavy-duty commercial, vocational, recreational, and transit vehicles.
Sec.1309 - Class 8 truck and trailer systems demonstration	Authorizes a program to demonstrate the integration of multiple advanced technologies on Class 8 truck and trailer platforms.
Sec. 1310 - Technology testing and metrics	Directs the Secretary of Energy to develop standard testing procedures for evaluating the performance of advanced heavy vehicle technologies.
Sec. 1311 - Nonroad systems pilot program	Authorizes a pilot program of research, development, demonstration, and commercial application for technologies to improve total machine or system efficiency for nonroad mobile equipment.

Subtitle F - Housing	
Sec. 1502 - Enhanced Energy Efficiency Underwriting Criteria	Directs the Secretary of Housing and Urban Development to develop and issue guidelines pertaining to energy efficiency for the Federal Housing Administration to use when considering enhanced loan eligibility
Sec. 1503 - Enhanced Energy Efficiency Underwriting Valuation Guidelines	Allows the Secretary of Housing and Urban Development to consider energy cost savings in determining home values

Title II -- Infrastructure

Provision	Description
Subtitle B -- Strategic Petroleum Reserve	
Sec. 2101 - Strategic Petroleum Reserve modernization	Reaffirms the strategic importance of the SPR. Section 2101(b) restricts the uses of funds raised from any drawdown to purposes directly related to either the operation of the Reserve or projects that enhance U.S. energy security. Section 2101(c) amends the definition of "related facility" to include terminals.
Sec. 2102 - Strategic petroleum reserve drawdown and sale	Allows the Secretary of Energy to increase SPR drawdown until a total revenue of \$5.05 billion is received by the Treasury.
Subtitle D -- Electricity and Energy Storage	
Sec. 2303 - Hybrid micro-grid systems for isolated and resilient communities	Requires the Secretary of Energy to establish a program to promote the development of hybrid micro-grid systems for isolated communities and micro-grid systems to increase the resilience of critical infrastructure
Sec. 2304 - Voluntary model pathways	Requires the Secretary of Energy to initiate development of voluntary model pathways for modernizing the electric grid through a collaborative public-private effort to facilitate certain objectives, and establishes a Steering Committee to facilitate the development.
Sec. 2306 - State and regional distribution planning	2307(a) requires the Secretary of Energy, upon the request of the State, to partner with States and regional organizations to facilitate development of State and regional electric distribution plans by conducting a resource assessment and developing open source tools for planning and operations. 2307(c) authorizes the Secretary to provide technical assistance to States and others.

<p>Sec. 2308 - Electric transmission infrastructure permitting</p>	<p>2309(a) codifies the Interagency Rapid Response Team for Transmission to improve the efficiency of electric transmitting infrastructure permitting.</p> <p>2309(b) establishes the position of Transmission Ombudsperson within Council on Environmental Quality (CEQ) to resolve delays and complaints related to the electric transmission infrastructure permitting process.</p> <p>2309(c) ensures the continuity of existing use and occupancy right-of-ways granted across public lands or National Forest System land (including vegetation management agreements, where applicable) for the transmission of electric energy by any Federal department or agency by providing for agreements between such Federal entities and the Secretaries of the Interior or Agriculture.</p>
<p>Sec. 2309 - Report by transmission organizations on distributed energy resources and micro-grid systems</p>	<p>Requires Transmission Organizations to submit a report to FERC within six months identifying barriers to the deployment of distributed energy systems and micro-grid systems, as well as potential changes to the operational requirements for, or the charges associated with, the interconnection of these resources to the Transmission Organization.</p>
<p>Sec. 2310 - Net metering study guidance</p>	<p>Amends Title 18 of the Energy Policy Act (EPACT) of 2005 and requires the Secretary of Energy to issue guidance on criteria for net metering studies conducted by the DOE and directs the DOE to undertake a study of net energy metering.</p>
<p>Sec. 2311 - Model guidance for combined heat and power systems and waste heat power systems</p>	<p>Directs the DOE, in consultation with FERC, to issue guidance for inclusion of CHP and waste heat into interconnected services based on current best practices.</p>
<p>Subtitle E -- Computing</p>	
<p>Section 2401. Exascale computer research program</p>	<p>Requires the Secretary of Energy to conduct a research program, and establish two or more National Lab partnerships with industry and institutes of higher education, to develop two or more exascale computing systems at DOE.</p>

Title III -- Supply

Provision	Description
Subtitle A -- Renewables	
Sec. 3005 - National goals for production and site identification	Provides a Sense of Congress for geothermal energy urging the Secretary of Interior to “significantly increase” geothermal production from federal lands, while asking the U.S. Geological Survey (USGS) to identify sites capable of producing 50,000 megawatts of geothermal power using the full range of available technologies, within 10 years.
Sec. 3006 - Priority areas for development on Federal land	Directs the Bureau of Land Management (BLM) to identify high priority areas for geothermal development and to facilitate required leasing and development.
Sec. 3007 - Facilitation of coproduction of geothermal energy on oil and gas leases	Amends section 4(b) of the Geothermal Steam Act (GSA) of 1970 to allow geothermal development by co-production of electricity from oil and gas leases on federal lands using geothermal technologies.
Section 3008. Noncompetitive leasing of adjoining areas for development of geothermal resources	Amends section 4(b) of the GSA 1970 to set up a noncompetitive leasing process where existing geothermal leaseholders on federal lands can move to lease adjoining lands administratively without rebidding. The amended section 4(b) sets the fair market value per acre that must be paid to gain such leases, sets minimum and maximum lease prices, lists the standards that must be met by lessees to gain lands, and limits the amount of land that can be acquired without competitive bids
Sec. 3009 - Report to Congress	Requires the Secretary of Energy to report to Congress within three years on the progress made by research into geothermal technologies and requires an additional report every five years thereafter.
Sec. 3011A-D: Development of Geothermal, Solar, and Wind Energy on Public Land provisions	Set up study and review process for permitting renewable projects on public lands
Sec. 3012 - Geothermal exploration test projects	Adds a new section 30 to GSA 1970 to allow for the use of a categorical exclusion to NEPA to permit geothermal exploration test wells to be drilled. The new section limits when the exclusion can be in place by acreage and environmental impacts and requires complete restoration of any site within three years, allows the relevant Secretary to deny any exclusion based on “extraordinary circumstances” as defined by existing regulations, and includes review and public notice provisions.

Sec. 3017 - Policies relating to biomass energy	Ensure consistent goals pertaining to forest bioenergy across federal departments.
Subtitle B -- Oil and Gas	
Sec. 3101 - Amendments to the Methane Hydrate Research and Development Act of 2000	Amends and reauthorizes the Methane Hydrate Research and Development Act of 2000. The amendments authorize basic and applied research to identify, explore, assess, and develop methane hydrate as a commercially viable source of energy and to identify the environmental, health, and safety impacts of such development; authorizes the identification of methane hydrate concentrations in the Gulf of Mexico and Atlantic Basin; authorizes basic and applied research, expanded education and training programs in methane hydrate resource research, and long-term environmental monitoring and research programs into the effects of the production of methane hydrate reservoirs.
Sec. 3104 - Pilot program	Requires the BLM to establish a single-state, 3-year-long pilot program to streamline drilling permits in spacing units wherein the Federal Government does not own or hold more than 25 percent of the subsurface minerals and does not own or hold surface area. Subsection (c) authorizes funding for 10 full-time equivalents and requires a report to Congress after four years.
Sec. 3105 - GAO review and report	Directs the GAO to study the effects of crude oil exports on consumers, independent refiners, and shipbuilding and ship repair yards
Sec. 3107 - Aliso Canyon natural gas leak task force	Establishes a task force to conduct a study of the Aliso Canyon natural gas leak
Sec. 3108 - Report on incorporating Internet-based lease sales	Directs the Sec. of the Interior to issues a report of recommendations for incorporating Internet-based safes at the Bureau of Land Management
Sec. 3109 - Denali National Park and Preserve natural gas pipeline	Clarifies provisions related to the natural gas pipeline in Denali National Park and Preserve
Subtitle C -- Helium	
Sec. 3201 - Rights to helium	<p>3201(b) requires the expedited completion of environmental reviews for helium-related projects.</p> <p>3201(c) amends the Mineral Leasing Act to repeal the Federal government's reservation of the first right to helium located on leased lands.</p> <p>3201(d) provides the first right of refusal to explore for helium on leased lands to the lessee</p>

Subtitle E -- Coal	
Sec. 3401 - Sense of the Senate on carbon capture, use, and storage development and deployment	Expresses the Senate’s belief that the Administration should promote carbon capture, use, and storage technologies development
Sec. 3402 - Fossil energy	Amends section 961(a) of EPACT 2005 to include improvement of conversion, use, and storage of carbon dioxide produced from fossil fuels as an objective in the research, development, demonstration, and commercial application programs for fossil energy at the DOE.
Sec. 3403 - Establishment of coal technology program	Repeals the existing EPACT 2005 coal programs, and establishes a new coal technology program, which includes programs for research and development, large-scale pilot projects, and demonstration projects. The program objectives are reliable power, conversion efficiencies, carbon capture and storage, reduction of emissions, and water discharge management. The amendment authorizes \$610 million annually from 2017-2020, and \$560 million for 2021.
Sec. 3404 - Report on price stabilization support	Directs the Secretary of Energy to conduct a cost-benefit analysis of entering into a partnership with qualified applicants to provide price stabilization support for certain industrial sources of capturing CO2 from electricity generation
Subtitle F -- Nuclear	
Sec. 3501 - Nuclear energy innovation capabilities	To enable civilian research and development of advanced nuclear energy technologies by private and public institutions, to expand theoretical and practical knowledge of nuclear physics, chemistry, and materials science.
Sec. 3502 - Next generation nuclear plant project	Removes the requirement that the project be built in a specific state.
Subtitle H -- Recycling	
Sec. 3701 - Recycled carbon fiber	Directs the Secretary of Energy to conduct a comprehensive study on the recycling of carbon fiber and production waste carbon fiber. Upon completion of the study, directs the Secretary to develop a recycled carbon fiber demonstration project.
Sec. 3702 - Energy generation and regulatory relief study regarding recovery and conversion of nonrecycled mixed plastics	Requires the Secretary of Energy to conduct a study to determine a cost-effective system to convert plastics into material that can be used to generate electric energy, fuels, or chemical feedstocks.

Sec. 3703 - Eligible projects	Excludes projects that use commonly recycled paper from being eligible for the Title XVII DOE loan guarantee program created by EPACK 2005.
Sec. 3704 - Promoting use of reclaimed refrigerants in Federal buildings	Directs the GSA to issue guidance on procuring reclaimed refrigerants to service existing equipment of Federal facilities
Subtitle I - Thermal Energy	
Sec. 3801 - Modifying the definition of renewable energy to include thermal energy	Modifies the term "renewable energy" for federal purchasing requirements to include qualified waste heat resources

Title IV -- Accountability

Provision	Description
Subtitle A -- Loan Programs	
Sec. 4001 - Terms and conditions for incentives for innovative technologies	<p>4001(a) amends section 1702 of EPACK 2005 to require that borrowers pay no less than 25 percent of the cost of the credit subsidy for a guarantee and directs the Secretary of Energy to provide an estimate or range for the expected cost as soon as practicable.</p> <p>4001(b) amends section 1702 of EPACK 2005 to clarify and reaffirm the current prohibition on subordination of debt.</p> <p>4001(c) increases the transparency of the section 1703 loan guarantee program by establishing a process for the borrower to request the status of their application directly from DOE.</p> <p>4001(d) repeals the temporary loan program under section 1705 of EPACK 2005.</p>
Sec. 4002 - State loan eligibility	Amends section 1701 of EPACK 2005 to clarify eligibility for State energy financing institutions and establishes terms and conditions for their participation in the Section 1703 loan guarantee program.
Sec. 4003 - GAO Study on fossil loan guarantee incentive program	Directs the Comptroller General of the United States to conduct a report on the effectiveness of DOE's advanced fossil loan guarantee program and other incentive programs for advanced fossil energy at the Department.
Sec. 4004 - Program eligibility for vessels	Authorizes projects for the reequipping, expanding, or establishing of a manufacturing facility in the United States to produce vessels to be eligible for the Advanced Technology Vehicles Manufacturing (ATVM) program established by section 136 of EISA 2007. Also prohibits the use of any existing

Sec. 4004 - Program eligibility for vessels (cont.)	credit subsidy and requires either new appropriations or borrowers to self-pay the credit subsidy associated with projects made eligible under the section.
Section 4005. Additional reforms	Directs the DOE to issue a rule that specifies energy efficiency improvement standards for the manufacturing, retrofitting, or repowering of vessels made eligible for the ATVM program, and provides the DOE, consistent with its authority under the section 1703 loan guarantee program, authority to charge fees for the ATVM program, including the ability to charge closing fees.
Sec. 4006 - Department of Energy Indian energy education planning and management assistance program	Reauthorizes the Indian Energy Education Planning and Management Assistance Program first created by the Energy Policy Act of 1992. It makes grants to Indian tribes for energy education, research and development, planning and management needs. It extends the current authorization for such grants from 2016 through 2021.
Subtitle B -- Energy-Water Nexus	
Sec. 4101 - Nexus of energy and water for sustainability	Directs the Secretary of Energy and the Secretary of the Interior to establish an Interagency Coordination Committee, co-chaired by the Secretaries of Energy and the Interior, to identify all relevant energy-water nexus activities across the federal government; enhance the coordination of research and development activities among agencies; gather and disseminate data to enable better practices; explore relevant public-private collaboration; issue a report on the feasibility of establishing an energy-water center of excellence at the National Laboratories, and develop a research and development plan for energy-water nexus related programs. It also directs the Secretaries to establish the Nexus of Energy and Water Sustainability (NEWS) office to provide leadership and administrative support functions for the Interagency Coordination Committee.
Subtitle C --Innovation	
Sec. 4202 - Inclusion of early stage technology demonstration in authorized technology transfer activities	Amends section 1001 of EPACT 2005 to allow directors of National Laboratories to use technology transfer funds to carry out early stage and pre-commercial technology demonstration activities, to remove technology barriers that limit private sector interest, and to demonstrate potential commercial applications of any research and technologies arising from National Laboratory activities

Sec. 4203 - Supporting access of small business concerns to National Laboratories	Requires the Secretary of Energy to create a website relating to National Laboratory programs available to small business concerns in order to facilitate access to the National Laboratories and the promotion of technology transfer of innovative energy technologies.
Sec. 4204 - Microlab technology commercialization	Allows the Secretary of Energy, in collaboration with the directors of the National Laboratories, to establish a microlab program. Section 4204(d) authorizes appropriations of \$50 million for fiscal year 2016.
Sec. 4205 - Sense of the Senate on accelerating energy innovation	Expresses the Senate's support for clean energy research and development
Sec. 4206 - Restoration of Laboratory Directed Research and Development Program	Ensures that laboratory contractors do not use R&D funds to cover general and administrative overhead costs
Sec. 4207 - National Science and Technology Council coordinating subcommittee for high-energy physics	Establishes a subcommittee to provide recommendations and stewardship related to Federal high-energy physics projects
Subtitle E -- Management	
Sec.4401 - Federal land management	<p>Authorizes the Secretary of the Interior to establish a "cadastre," or computerized inventory of buildings and other real property (land), including associated infrastructure such as roads and utility systems and pipelines, collected from surveys, maps, charts and inventories that will be stored as digital data.</p> <p>4401(b)(1)(C) authorizes the Secretary to enter into discussions with other federal agencies to utilize the data inventory system to keep track of their holdings, and authorizes the development of cost-sharing agreements so that states, local governments, and Indian tribes may also utilize the inventory system.</p> <p>4401(b)(4) outlines the coordination involved in collecting and creating the geographical (data) information system that will store the inventories.</p> <p>4401(c) requires that the information be kept in a graphically geo-enabled and searchable format available to the public on the Internet, provided that the identity of any buildings and facilities that would impair or jeopardize national security or homeland defense are withheld from public disclosure.</p> <p>4401(d) clarifies that nothing in the provision requires any new appraisals or assessments of</p>

Sec.4401 - Federal land management (cont.)	federal assets for any purpose.
Sec. 4402 - Quadrennial Energy Review	Amends section 801 of the DOE Organization Act to require the President to establish a Quadrennial Energy Review (QER) Task Force comprising high-level agency officials. Requires this task force to conduct a DOE-supported review of national energy policy every four years.
Sec. 4403 - State oversight of oil and gas programs	Adds a new section requiring the Secretary of the Interior to establish a program through which the BLM and a State, upon the request of the Governor of the State, can enter into a memorandum of understanding to consider the costs and benefits of creating consistent rules and processes governing oil and gas production activities on federal lands in the State.
Sec. 4405 - Western Area Power Administration pilot project	Establishes a 10 year transparency pilot project to publish rate, capacity, and cost information for the public
Sec. 4406 - Research grants database	Directs the Secretary of Energy to establish and maintain a public database of unclassified R&D project contracts, grants, cooperative agreements, and task orders, along with relevant literature and patents associated with the research
Sec. 4407 - Review of economic impact of BSEE rule on small entities	Pertains to the impact of the “Oil and Gas and Sulphur Operations in the Outer Continental Shelf - Blowout Preventer Systems and Well Control” proposed rule
Sec. 4408 - Energy emergency response efforts of the Department	Adds emergency response functions to the Under Secretary for Science and Energy pertaining to emergency disruptions of energy supply, transmission, and distribution
Sec. 4409 - GAO report on the Bureau of Safety and Environmental Enforcement statutory and regulatory authority for the procurement of helicopter fuel	Pertains to privately owned helicopter fuel procurement by the BSEE
Sec. 4410 - Conveyance of federal land within the Swan Lake hydroelectric project boundary	Transfers Swan Lake Project Boundary Lot 2 to the State of Alaska
Sec. 4411 - Study of waivers of certain cost-sharing requirements	Directs the Secretary of Energy to study and issue a report to Congress regarding cost-sharing waivers
Sec. 4412 - National park centennial	Establishes a National Park Centennial Challenge Fund to finance qualified projects and programs to enhance the National Park System and adds a

Sec. 4412 - National park centennial (cont.)	chapter on education and interpretation
Sec. 4413 - Program to reduce the potential impacts of solar energy facilities on certain species	Directs the Department of Energy to evaluate the threat solar energy projects pose on birds
Sec. 4414 - Wild horses in and around the Currituck National Wildlife Refuge	Gives authority to promote genetic diversity for wild horses in North Carolina
Subtitle G -- Affordability	
Sec. 4601 - E-prize competition pilot program	Amends section 1008 of EPACT 2005 to add an E-prize Competition Pilot Program. The new section 1008(g)(2)(A) requires the Secretary of Energy to establish an e-prize competition or challenge pilot program to implement sustainable community and regional energy solutions that seek to reduce energy costs through increased efficiency, conservation, or technology innovation in high-cost regions. The new section 1008(g)(2)(B) provides for a prize purse to be awarded by the Secretary, in amounts determined by the Secretary, through one or more competitions or challenges.

Title V -- Land and Water Conservation Fund Reauthorization

Provision	Description
Sec. 5001 - National Park Service Maintenance and Revitalization Conservation Fund	Establishes a National Park Service Critical Maintenance and Revitalization Conservation Fund to address high-priority deferred maintenance needs of the National Park Service with a prohibition on the use of funds for land acquisition.
Sec. 5002 - Land and Water Conservation Fund	Permanently reauthorizes the Land and Water Conservation Fund (LWCF). Specifies the way in which funds may be allocated; adding two new set-asides: one for hunting, fishing, or other recreational purposes and another for recreation and conservation programs important to states. In making federal land acquisitions, the Secretaries shall consider conservation easements and are required to take into account certain considerations in determining which land or interests in land to acquire.
Sec. 5003 - Historic Preservation Fund	Permanently reauthorizes the Historic Preservation Fund.
Sec. 5004 - Conservation incentives landowner education program	Establishes a clearinghouse within the Department of the Interior for information pertaining to conservation incentives for landowners

Title VI - Indian Tribal Energy Development and Self-Determination

Provision	Description
Subtitle A - Indian Tribal Energy Development and Self-determination Act Amendments	
Sec. 6011 - Indian tribal energy resource development	Modernizes sections of the Energy Policy Act of 1992 to include tribal energy development
Sec. 6012 - Indian tribal energy regulation	Modernizes a section of the Energy Policy Act of 1992 pertaining to energy resource regulations
Sec. 6013 - Tribal energy resource agreements	Modernizes a section of the Energy Policy Act of 1992 pertaining to Federal-tribal agreements
Sec. 6014 - Technical assistance for Indian tribal governments	Directs the Secretary of Energy to collaborate with the National abs to provide technical assistance for tribes on energy projects
Subtitle B - Miscellaneous Amendments	
Sec. 6201 - Issuance of preliminary permits or licenses	Updates the Federal Power Act to include Indian tribes as authorities that can issue preliminary permits
Sec. 6202 - Tribal biomass demonstration project	Sets forth criteria for Indian and Alaska Native pilot projects to produce biofuels, heat, and electricity generation from biomass
Sec. 6203 - Weatherization program	Provides federal funding for tribal weatherization programs assisting low-income populations
Sec. 6204 - Appraisals	Relates to appraisals of mineral or energy recourses held by the U.S. for the benefit of an Indian tribe
Sec. 6205 - Leases of restricted lands for Navajo Nation	Allows for leases on Navajo lands for energy exploration
Sec. 6206 - Extension of tribal lease period for the Crow Tribe of Montana	Extends leasing authority to the Crow Tribe on Montana for public, religious, educational, recreational, residential, or business purposes, including the development or utilization of natural resources
Sec. 6207 - Trust status of lease payments	Pertains to advanced funds received in connection to a conveyance of restricted lands

Title VII - Brownfields Reauthorization

Provision	Description
Sec. 7002 - Expanded eligibility for nonprofit organizations	Adds 501(c)3 and LLC to list of eligible entities for revitalization funding
Sec. 7003 - Multipurpose brownfield grants	Establishes a grant program for entities to carry out inventory, characterization, assessment, planning, or remediation activities

Sec. 7004 - Treatment of certain publicly owned brownfield sites	Allows a governmental entity to qualify for remediation grants so long as they have not caused or contributed to a release or threatened release of a hazardous substance at the site
Sec. 7005 - Increased funding for remediation grants	Increases grants from \$200,000 up to \$650,000
Sec. 7006 - Allowing administrative costs for grant recipients	Allows up to 8% of the grant to cover administrative costs
Sec. 7007 - Small community technical assistance grants	Sets forth a grant program for small and disadvantaged communities
Sec. 7008 - Waterfront brownfields grants	Allows grant consideration for waterfront brownfields sites as defined in the provision
Sec. 7009 - Clean energy brownfields grants	Establishes a grant program for entities looking to locate a clean energy project at a brownfields site
Sec. 7010 - Targeted funding for States	Allows the EPA to direct up to \$2 million to states that have used more than 50% of previous years remediation funds

Title VIII - Miscellaneous

Provision	Description
Sec. 8001 - Removal of use restrictions	Pertains to restrictions on land used as a child care center in Rockingham County, VA

Title IX - Miscellaneous

Provision	Description
Sec. 9001 - Interagency transfer of land along George Washington Memorial Parkway	Transfers portions of the Parkway between the Secretaries of the Interior and Transportation

Title X - Natural Resources

Provision	Description
Subtitle B - National Park Management, Studies, and Related Matters	
Sec. 10101 - Refund of funds used by States to operate national parks during shutdown	Refunds for operations held during October 2013
Sec. 10102 - Lower Farmington and Salmon Brook recreational rivers	Designates sections of the Lower Farmington River and Salmon Brook as recreational under the Wild and Scenic Rivers Act
Sec. 10103 - Special resource study of President Street Station	Directs the Secretary of the Interior to study the national significance of the Station in Baltimore, MD

Sec. 10104 - Special resources study of Thurgood Marshall’s elementary school	Directs the Secretary of the Interior to study the national significance of the School in Baltimore, MD
Sec. 10105 - Special resource study of James K. Polk presidential home	Directs the Secretary of the Interior to study the national significance of the Home in Columbia, TN
Sec. 10106 - North Country National Scenic Trail route adjustment	Adjusts the route from NY to VT
Sec. 10107 - Designation of Jay S. Hammond Wilderness Area	Renames the Lake Clark National Park and Preserve to the Jay S. Hammond Wilderness Area
Sec. 10108 - Advisory Council on Historic Preservation	Adds the General Chairman of the National Association of Tribal Historic Preservation Officers to the Council
Sec. 10109 - Establishment of a visitor services facility on the Arlington Ridge tract	Establishes a visitor center near Arlington Cemetery in Arlington, VA
Subtitle D - Water Infrastructure and Related Matters	
Part I - Fontenelle Reservoir	
Sec. 10301 - Authority to make entire active capacity of Fontenelle Reservoir available for use	Permits the Interior and the State of Wyoming to contract in constructing modifications to the Fontenelle Dam
Part II - Bureau of Reclamation Transparency	
Sec. 10312 - Asset management report enhancements for reserved works	Commissions a report to assess needed infrastructure maintenance under the Bureau
Sec. 10313 - Asset management report enhancements for transferred works	Sets a ratings system for repair and rehabilitation needs
Part III - Basin Water Management	
Subpart A - Yakima River Basin Water Enhancement	
Sec. 10323 - Yakima River Basin Water Conservation Program	Provides updates to the Program by adding authorities to a designated Federal official and a provision on payment of local share by State or Federal Government
Sec. 10324 - Yakima Basin water projects, operations, and authorizations	Authorizes increased funding operational aspects to the Basin
Sec. 10325 - Authorization of Phase III of Yakima River Basin Water Enhancement Project	Sets forth authorizing language for Phase III of the Enhancement Projects under Title XII of P.L. 103-434
Subpart B - Klamath Project Water and Power	
Sec. 10329 - Klamath Project	Establishes a system of power and water management associated with the Klamath Project
Part IV - Reservoir Operation Improvement	
Sec. 10331 - Reservoir operation improvement	Directs the Secretary to report on floor control projects and identify projects for improvement

**Provisions Specific to H.R. 8
 North American Energy Security and Infrastructure Act**

Title I -- Modernizing and Protecting Infrastructure

Provision	Description
Subtitle A -- Energy Delivery, Reliability, and Security	
Sec. 1103 - Emergency preparedness for energy supply disruption	<p>Finds that recent natural disasters have underscored the importance of having resilient oil and natural gas infrastructure and effective ways for industry and government to communicate to address energy supply disruptions. This section directs the Secretary of Energy to develop and adopt procedures to enhance communication and coordination between the DOE, Federal partners, State and local government and the private sector to improve emergency response and recovery</p>
Sec. 1104 - Critical electric infrastructure security	<p>Establishes a new section 215A of the Federal Power Act that:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Provides the Secretary of Energy the authority to address grid security emergencies if the President provides a written directive or determination identifying a grid security emergency. The Secretary is authorized to take emergency measures to protect the bulk power system or defense critical electric infrastructure, including ordering critical electric infrastructure owners and operators to take appropriate actions, with such measures to expire no later than 15 days from issuance. <input type="checkbox"/> Facilitates the protection and voluntary sharing of critical electric infrastructure information between private sector asset owners and the Federal government by: (1) exempting designated Critical Electric Infrastructure Information from certain Federal and state disclosure laws; 2) requiring FERC to facilitate voluntary information sharing between Federal, State, local and tribal authorities, the Electric Reliability Organization, regional entities, and owners, operators and users of the bulk-power system in the U.S.; and 3) establishing sanctions for the unauthorized disclosure of shared information.
Sec. 1105 - Strategic Transformer Reserve	<p>Requires DOE to submit a plan to Congress evaluating the feasibility of establishing a Strategic Transformer Reserve for the storage, in strategically-located facilities, of spare large power transformers and other critical equipment in</p>

<p>Sec. 1105 - Strategic Transformer Reserve (cont.)</p>	<p>sufficient numbers to temporarily replace critically damaged large power transformers. Strategically-located spare large power transformers will diminish the vulnerability of the United States to multiple risks facing electric grid reliability, including physical attack, cyber-attack, electromagnetic pulse, geomagnetic disturbances, severe weather, and seismic events.</p>
<p>Sec. 1107 - State coverage and consideration of PURPA standards for electric utilities</p>	<p>Directs electric utilities and State public utility commissions to consider:</p> <ul style="list-style-type: none"> • Increasing the utilization of, and cost recovery for, resiliency-related technologies designed to improve the resilience of electric infrastructure, mitigate power outages, continue delivery of vital services, and maintain the flow of power to facilities critical to public health, safety, and welfare; • Promoting investments in advanced energy analytics technology for the purposes of realizing operational efficiencies, cost savings, enhanced energy management and customer engagement, improvements in system reliability, safety, and cybersecurity, or other benefits to ratepayers; and • Adopting or modifying policies to ensure the incorporation of sufficient reliable generation into integrated resource plans to assure the reliable availability of electric energy over a 10-year planning period.
<p>Sec. 1108 - Reliability Analysis for Certain Rules that affect Electric Generating Facilities</p>	<p>Requires the FERC, in coordination with the Electric Reliability Organization, to complete an independent reliability analysis of any proposed or final "billion dollar" federal rule that affects electric generating units. The reliability analysis must evaluate the potential impacts of the rule on:</p> <ol style="list-style-type: none"> 1) electric reliability and resource adequacy; 2) the electricity generation portfolio of the United States; 3) the operation of wholesale electricity markets; and 4) energy delivery and infrastructure, including electric transmission facilities and natural gas pipelines.
<p>Sec. 1115 - Designation of National Energy Security Corridors on Federal lands</p>	<p>The Interior Department would have to designate at least 10 National Energy Security Corridors on federal land within two years of the bill's enactment. The department would have to consider and</p>

<p>Sec. 1115 - Designation of National Energy Security Corridors on Federal lands (cont.)</p>	<p>approve applications for natural gas pipeline rights-of-way in the designated corridors within one year.</p> <p>The bill would expand the federal land eligible for natural gas pipeline siting, including designation as National Energy Security Corridors, to include land in the National Park System.</p> <p>Governors would be permitted to request the designation of corridors in their state.</p>
<p>Sec. 1116 - Vegetation management, facility inspection, and operation and maintenance on Federal lands containing electric transmission and distribution facilities</p>	<p>The Bureau of Land Management and the Agriculture Department would have to streamline the approval process for operators of electrical transmission and distribution facilities to clear trees and other vegetation growing in and around transmission rights-of-way.</p> <p>Operators would be able to submit long-term plans for vegetation management and maintenance activities for approval by the agencies, which would have to respond to any proposed plan within 90 days.</p>

Title III -- Energy Security and Diplomacy

Provision	Description
<p>Sec. 2001 - Sense of Congress</p>	<p>Establishes a Sense of Congress that:</p> <ol style="list-style-type: none"> 1) North America’s energy revolution has significantly enhanced energy security in the United States, and fundamentally changed the Nation’s energy future from that of scarcity to abundance; 2) North America’s energy abundance has increased global energy supplies and reduced the price of energy for consumers in the United States and abroad; 3) allies and trading partners of the United States, including in Europe and Asia, are seeking stable and affordable energy supplies from North America to enhance their energy security; 4) the United States has an opportunity to promote greater stability and affordability of energy supplies for its allies and trading partners through a more integrated, secure, and competitive North American energy system; and 5) the United States also has an opportunity to promote such objectives through greater Federal agency coordination relating to regulations or agency actions that significantly affect the supply, distribution, or use of energy.

Sec. 2002 - Energy security valuation	Directs the Secretary of Energy to establish U.S. energy security valuation methods to ensure that energy-related actions that significantly affect the supply, distribution, or use of energy are evaluated with respect to their potential impact on energy security, including their impact on consumers and the economy; energy supply, diversity and resiliency; well-functioning and competitive energy markets; United States trade balance; and national security objectives.
Sec. 2004. - Collective energy security	Directs the DOE, in consultation with the Secretary of State, to convene at least 1 Trans-Atlantic and 1 Trans-Pacific forum to foster dialogue among the governments of U.S. allies and trading partners, independent experts, and industry representatives with the goal to promote energy security.
Sec. 2007 - Authorization of cross-border infrastructure projects	Grants application of natural gas importation or exportation to Canada and Mexico within 30 days of receipt. Repeals FERC order requirement prior to transmitting electricity to Canada or Mexico.
Sec. 2008 - Report on smart meter security concerns	Directs the Secretary of Energy to submit a report to Congress detailing security weaknesses in smart meters.

Title IV -- Energy Efficiency and Accountability

Provision	Description
Subtitle A -- Energy Efficiency	
Sec. 3113 - Report on energy and water savings potential from thermal insulation	Directs the DOE to submit a report within 1 year on the impact of thermal insulation on both energy and water use systems for potable hot and chilled water in Federal buildings and on the return on investment of installing the insulation. The report must include: (1) an analysis based on the cost of municipal or regional water for delivered water and the avoided cost of new water; and (2) a summary of energy and water savings, including short-term and long-term (20 years) projections of such savings
Sec. 3113 - Report on energy and water savings potential from thermal insulation (cont.)	
Sec. 3114 - Battery storage report	Directs the Comptroller General to submit a report to Congress on Federal policies effect on storage technology development.
Sec. 3115 - Federal purchase requirements	Expands the definition of “renewable energy” in section 203 of the Energy Policy Act of 2005 to include thermal energy and qualified waste heat resources. The section also modifies the term “municipal solid waste” by excluding certain

Sec. 3115 - Federal purchase requirements (cont.)	commonly recycled paper.
Sec. 3118 - Operation of battery recharging stations in parking areas used by Federal employees	<p>Federal agencies would be allowed to install battery recharging stations in parking lots used by agency employees. The stations could be installed directly by agencies or through contractors.</p> <p>Agencies would have to recoup installation expenses through fees charged to users of the recharging stations. The fees would be available for obligation without further appropriation during the fiscal year they were collected and the following fiscal year.</p> <p>The measure wouldn't affect existing programs run by the House and Senate.</p>
Sec. 3119 - Report on Energy Savings and Greenhouse Gas Emissions Reduction from Conversion of Captured Methane to Energy	Directs the Secretary of Energy to submit a report to Congress summarizing the performance and savings from utilizing methane capture technologies and analyze
Sec. 3121 - Inclusion of Smart Grid capacity on Energy Guide labels	Directs the Federal Trade Commission to initiate a rulemaking to develop Energy Guide labels that promote the smart grid capabilities of certain products.
Sec. 3125 - Clarification to Effective Date for Regional Standards	Replace the "installed by" date with the "manufactured by" date for purposes of the enforcement scheme for residential heating and cooling appliances subject to regional energy efficiency standards. This change would minimize inventory and forecasting problems for equipment contractors, distributors, and manufacturers if DOE sets regional energy conservation standard for furnaces, central air conditioners, and heat pumps.
Sec. 3126 - Internet of Things report	Directs the Secretary of Energy to submit a report to Congress on efforts made to utilize advanced "Internet of Things" end-to-end platform technologies.
Sec. 3127 - Energy savings from lubricating oil	Directs the Secretary of Energy to submit an updated report to Congress summarizing the benefits and ways to increase the benefits of used lubricated oil.
Sec. 3128 - Definition of external power supply	Excludes devices that are exclusively connected to provide power to LED or OLEDs as being an "external power supply."
Sec. 3129 - Standards for power supply circuits connected to LEDS or OLEDS	Directs the Secretary of Energy to set energy conservation standards for devices designed primarily to be connected to and power light-

Sec. 3129 - Standards for power supply circuits connected to LEDS or OLEDS (cont.)	emitting diodes or organic light-emitting diodes.
Sec. 3142 - Voluntary nature of building asset rating program	States that any program that would rate, score, or label commercial or residential building's energy usage should be available exclusively on a voluntary basis. Such a program shall not be the basis for any government regulatory program.
Sec. 3151 - Modifying Product Definitions	Amends the Energy Policy and Conservation Act (EPCA) to permit, if there is stakeholder consensus, DOE to prospectively revise product definitions relating to appliance energy conservation standards for residential and commercial products for purposes of standards, test procedures, labeling and preemption. Under current law, certain definitions cannot be changed without statutory change.
Sec. 3152 - Clarifying Rulemaking Procedures	<ul style="list-style-type: none"> • This section would state that all DOE product standards must be based and rationalized on a final revised test procedure, if any, and that the public shall have at least 180 days between the publication of a final revised test procedure and the end of the public comment period for a proposed product standard to analyze, test and comment on its implications. The provision would allow for an exception for consensus developed revised test procedures. • Consistent with the interest in having early stakeholder input, this section would also require DOE to provide pre-proposed rule public input on design options and voluntary non-regulatory options. In addition, this section would require the identification of significant groups of consumers and manufacturers who merit analysis, among other relevant issues. • This section also would require DOE, in a notice of proposed rulemaking, to: <ul style="list-style-type: none"> ○ Seek comment and determine whether its technical and economic assumptions, methods, and models used to justify a standard are justified and available and accessible for public review, analysis, and use, and; ○ Take into account the cumulative regulatory impact on product manufacturers of other government standards affecting energy use and other energy conservation standards affecting the same manufacturers.

Sec. 3211 - FERC Office of Compliance Assistance and Public Participation	Establishes an Office of Compliance Assistance and Public Participation in FERC. The office would make regulatory, consumer protection and market integrity recommendations to the full commission and provide guidance to regulated entities to improve compliance.
Sec. 3221 - GAO study on wholesale electricity markets	<p>Directes the GAO to study whether and how the current market rules, practices, and structures of each regional transmission entity produce rates that are just and reasonable.</p> <p>The study would examine subjects including fuel diversity and the reliability of electricity generation, different business models, regulatory barriers and distortions, administrative transparency, and pipeline and electric transmission infrastructure.</p> <p>The report would be due to Congress within a year of the bill's enactment.</p>
TITLE IV - CHANGING CRUDE OIL MARKET CONDITIONS	Repeals the crude oil export ban and prohibits the export of crude to Iran.
Sec. 6002 - Provision of interconnection service and net billing service for community solar facilities	Amends PURPA to direct States to create regulations allowing for end-user to offset electric usage with community solar facilities.

DIVISION B - RESILIENT FEDERAL FORESTS (H.R. 2647)

Provision	Description
Title I - Expedited Environmental Analysis and Availability of Categorical Exclusions to Expedite Forest Management Activities	This bill expedites environmental NEPA review of management activities proposed for forest lands of either the Department of Agriculture (USDA) with respect to National Forest System land or the Department of the Interior with respect to public lands.
Title II - Salvage and Reforestation in Response to Catastrophic Events	The bill further sets forth time periods for achieving a proposed salvage operation or reforestation activity on System or public lands impacted by a large-scale catastrophic event.
Title III - Collaborative Project Litigation Requirement	Any plaintiffs challenging a forest management activity developed through a collaborative process or proposed by a resource advisory committee shall be required to post a bond or other security equal to the anticipated costs, expenses, and attorneys' fees of the Department concerned as defendant.
Title IV - Secure Rural Schools and Community Self-Determination Act Amendments	Repeals the Merchantable Timber Contracting Pilot Program under the Secure Rural Schools and Community Self-Determination Act of 2000.

<p>Title IV - Secure Rural Schools and Community Self-Determination Act Amendments (cont.)</p>	<p>The Department concerned shall ensure that at least 50% of the project funds reserved by a participating county for carrying out a special project on federal land or certain nonfederal land under the same Act shall be made available only for projects meeting certain standards</p>
<p>Title V - Stewardship End Result Contracting</p>	<p>The Healthy Forests Restoration Act of 2003 is amended to authorize the Forest Service and the Bureau of Land Management (BLM) to obligate funds to cover potential cancellation or termination costs for an agreement or contract for stewardship end result contracting projects.</p>
<p>Title VI - Additional Funding Sources for Forest Management Activities</p>	<p>Monies from an agreement or contract for a stewardship contracting project shall be available for expenditure without further appropriation to cover up to 25% of the cost of planning additional stewardship end result contracting projects.</p>
<p>Title VII - Tribal Forestry Participation and Protection</p>	<p>Interior shall take specified administrative action under the Tribal Forest Protection Act of 2004 within 120 days of receiving a request from an Indian Tribe to enter into an agreement or contract to carry out a project to protect Indian forest land or rangeland (including bordering or adjacent federal land). Interior shall (under current law, may) issue a notice of denial to the Tribe if the request is denied.</p> <p>The Department concerned, at the request of an Indian Tribe, may treat federal forest land as Indian forest land for purposes of planning and conducting forest land management activities under the National Indian Forest Resources Management Act if the federal forest land is located within, or mostly within, a geographic area presenting a feature or involving circumstances principally relevant to that Indian tribe.</p>
<p>Title VIII - Miscellaneous Forest Management Provisions</p>	<p>Sets forth certain funding requirements for timber purchases and other management activities</p>
<p>Title IX - Major Disaster for Wildfire on Federal Land</p>	<p>The Robert T. Stafford Disaster Relief and Emergency Assistance Act is amended to define "major disaster for wildfire on federal lands" to mean any wildfire or wildfires that warrant assistance to supplement the efforts and resources of Interior or USDA on federal lands or on nonfederal lands pursuant to a fire protection agreement or cooperative agreement.</p> <p>A process is established for declaration of a major disaster for wildfire on federal lands managed by the BLM, the National Park Service, the Bureau of Indian Affairs, the U.S. Fish and Wildlife Service,</p>

Title IX - Major Disaster for Wildfire on Federal Land (cont.) and the Forest Service.

DIVISION C -- NATURAL RESOURCES

Provision	Description
Title I - Western Water and American Food Security Act (H.R. 2898)	Establishes procedures for relevant federal agencies to address drought conditions in California by revising regulatory standards for managing conveyances of water to individual, agricultural, municipal, and industrial users from the California-based Central Valley Project (CVP) and State Water Project in coordination with requirements for protecting threatened or endangered species under the Endangered Species Act of 1973
Title II - Salvage and Reforestation in Response to Catastrophic Events	The bill further sets forth time periods for achieving a proposed salvage operation or reforestation activity on System or public lands impacted by a large-scale catastrophic event.
Title III - Collaborative Litigation Requirements	Any plaintiffs challenging a forest management activity development through a collaborative process or proposed by a resource advisory committee shall be required to post a bond or other security equal to the anticipated costs, expenses, and attorneys' fees of the Department concerned as defendant. Should the Department prevail, the bond will be used to pay for reasonable costs, expenses, and fees.
Title IV - Native American Energy Act (H.R. 538)	Amends the Energy Policy Act of 1992 to allow the Department of the Interior, an affected Indian tribe, or a certified third-party appraiser under contract with the Indian tribe to appraise Indian land or trust assets involved in a transaction requiring Interior approval. (Currently, Interior sets appraisal requirements.)
Title V - Northport Irrigation Early Repayment	
Sec. 5001 - Early repayment of construction costs	Notwithstanding section 213 of the Reclamation Reform Act of 1982 (43 U.S.C. 390mm), any landowner within the Northport Irrigation District in the State of Nebraska (referred to in this section as the "District") may repay, at any time, the construction costs of project facilities allocated to the landowner's land within the District.

DIVISION D - SCIENCE

Title I - Department of Energy Science (H.R. 1806)

Provision	Description
Secs. 501-509	<p>Directs the DOE Office of Science to carry out programs on basic energy sciences, advanced scientific computing research, high energy physics, biological and environmental research, fusion energy sciences, nuclear physics, science labs infrastructure, and domestic manufacturing through activities focused on:</p> <ul style="list-style-type: none"> • fundamental scientific discoveries through the study of matter and energy; • science in the national interest; and • national scientific user facilities to deliver the 21st century tools of science, engineering, and technology and provide U.S. researchers with the most advanced tools of modern science.

Title VI -- Department of Energy Applied Research and Development (H.R. 1806)

Provision	Description
Subtitle A - Crosscutting Research and Development	
Secs. 601 - 604	<p>Directs DOE, through the Under Secretary for Science and Energy, to utilize DOE capabilities to identify strategic opportunities for collaborative research and development of innovative science and technologies for:</p> <ul style="list-style-type: none"> • advancing the understanding of the energy-water-land use nexus; • modernizing the electric grid by improving energy transmission and distribution systems security and resiliency; • using supercritical carbon dioxide in electric power generation; • subsurface technology and engineering; • high performance computing; • cybersecurity; and • critical challenges identified through comprehensive energy studies, evaluations, and reviews.

Subtitle B - Electricity Delivery and Energy Reliability Research and Development	
Secs. 611-612	<p>Amends the Energy Policy Act of 2005 also to require DOE, in carrying out distributed energy resources and systems programs to seek to:</p> <ul style="list-style-type: none"> • leverage existing programs; • consolidate and coordinate activities throughout DOE to promote collaboration and crosscutting approaches; • ensure activities are undertaken in a manner that does not duplicate other activities within DOE or other federal government activities; and • identify programs that may be more effectively left to the states, industry, nongovernmental organizations, institutions of higher education, or other stakeholders. <p>Requires the comprehensive research and development program to ensure the reliability, efficiency, and environmental integrity of electrical transmission and distribution systems to include technologies to enhance security for such systems.</p>
Subtitle C—Nuclear Energy Research and Development	
Sec. 621 - 628	<p>Amends the Energy Policy Act of 2005 to require civilian nuclear energy research and development programs to take into consideration the following new objectives:</p> <ul style="list-style-type: none"> • reducing used nuclear fuel and nuclear waste products generated by civilian nuclear energy, • supporting technological advances that industry by itself is not likely to undertake because of technical and financial uncertainty, and • researching and developing technologies and processes to meet federal and state requirements and standards for nuclear power systems.
Subtitle D—Energy Efficiency and Renewable Energy Research and Development	
Sec. 641 - Energy efficiency.	<p>Amends the Energy Policy Act of 2005 to require energy efficiency programs under that Act to prioritize activities that industry by itself is not likely to undertake because of technical challenges or regulatory uncertainty.</p> <p>Modifies the objectives to be taken into</p>

<p>Sec. 641 - Energy efficiency. (cont.)</p>	<p>consideration under such program, eliminating reduction of U.S. energy demand and improvement of U.S. energy security.</p> <p>Revises the technologies that shall be included in the research and development of such programs, eliminating hybrid and electric propulsion systems and advanced control devices to improve the energy efficiency of electric motors, but adding advanced battery technologies and fuel cell and hydrogen technologies.</p>
<p>Sec. 642 - Next Generation Lighting Initiative.</p>	<p>Eliminates the Next Generation Lighting Initiative, the grant and technical assistance program to support the development of voluntary consensus-based standards for high-performance buildings, and the secondary electric vehicle battery use program.</p>
<p>Sec. 643 - Building standards.</p>	<p>Eliminates the Grant and Technical Assistance Program from the High Performance Building Standards section 914 of the Energy Policy Act of 2005</p>
<p>Sec. 644 - Secondary electric vehicle battery use program.</p>	<p>Repeals Sec. 915, the Secondary Electric Vehicle Battery Use Program, from the Energy Policy Act of 2005</p>
<p>Sec. 645 - Network for Manufacturing Innovation Program.</p>	<p>Authorizes the DOE to transfer to the NIST up to \$150 million through FY2017 from appropriations for advanced manufacturing research and development to carry out the Network for Manufacturing Innovation Program.</p>
<p>Sec. 646 - Advanced Energy Technology Transfer Centers.</p>	<p>Revises certain requirements related to the Advanced Energy Technology Transfer Centers. Prohibits the use of any funds awarded under the Act for the deployment of commercially available technologies. Repeals the authorization of appropriations for such program.</p>
<p>Sec. 647 - Renewable energy.</p>	<p>Declares as an objective of renewable energy research and development programs decreasing U.S. dependence on foreign mineral resources (currently, on foreign energy supplies).</p> <p>Revises requirements regarding solar energy and wind energy programs.</p> <p>Eliminates research on fish-friendly large turbines from hydropower programs.</p> <p>Requires DOE analysis and evaluation activities in support of the renewable energy programs to include an assessment of domestic and international market drivers, including the impacts of any federal, state, or local grants, loans, loan</p>

<p>Sec. 647 - Renewable energy. (cont.)</p>	<p>guarantees, tax incentives, statutory or regulatory requirements, or other government initiatives.</p>
<p>Sec. 648 - Bioenergy program.</p>	<p>Repeals the requirement that the bioenergy program include economic analysis.</p> <p>Revises the goals of the biofuels and bioproduct programs to include development of advanced conversion of biomass to biofuels and bioproducts as part of integrated biorefineries based on either biochemical processes, thermochemical processes, or hybrids of those processes.</p> <p>Eliminates integrated biorefinery demonstration projects, the university biodiesel program, and the program for research, development, demonstration, and commercial application for increasing energy efficiency and reducing energy consumption in the operation of biorefinery facilities.</p> <p>Prohibits any of funds authorized for carrying out provisions relating to the bioenergy program from being used to fund commercial biofuels production for defense purposes.</p> <p>Redefines "biomass" to include solids derived from waste water treatment processes.</p>
<p>Sec. 649 - Concentrating solar power research program.</p>	<p>Eliminates the concentrating solar power research program and the demonstration program for renewable energy in public buildings.</p>
<p>Sec. 650 - Renewable energy in public buildings.</p>	<p>Eliminates Sec. 935, the Demonstration and Technology Transfer Program, from the Energy Policy Act of 2005</p>
<p>Subtitle E—Fossil Energy Research and Development</p>	
<p>Sec. 661 - Fossil energy.</p>	<p>Amends the Energy Policy Act of 2005 to repeal the requirement that fossil energy programs take into consideration the objective of improving U.S. energy security.</p> <p>Requires DOE to seek to:</p> <ul style="list-style-type: none"> • leverage existing programs; • consolidate and coordinate activities throughout DOE to promote collaboration and crosscutting approaches; • ensure activities are undertaken in a manner that does not duplicate other activities within DOE or other federal government activities; and • identify programs that may be more

<p>Sec. 661 - Fossil energy. (cont.)</p>	<p>effectively left to the states, industry, nongovernmental organizations, institutions of higher education, or other stakeholders.</p> <p>Eliminates the prohibition against using any funding authorized for such programs for Import/Export Authorization.</p> <p>Prohibits the use of the results of any DOE fossil energy research, development, demonstration, or commercial application projects or activities for regulatory assessments or determinations by federal regulatory authorities.</p> <p>Requires DOE to assess:</p> <ul style="list-style-type: none"> • the technical, institutional, policy, and regulatory constraints to bringing new domestic fossil resources to market; and • existing and projected technological capabilities for expanded production from domestic unconventional oil, gas, and methane reserves.
<p>Sec. 662 - Coal research, development, demonstration, and commercial application programs.</p>	<p>Includes under the program for coal and related technologies programs to facilitate production and generation of coal-based power through:</p> <ul style="list-style-type: none"> • specific additional programs to address water use and reuse; • the testing of high temperature materials for use in advanced systems for combustion or the use of coal; and • innovations to application of existing coal conversion systems designed to increase efficiency of conversion, flexibility of operation, and other modifications to address existing usage requirements. <p>Authorizes DOE to enter into cost-sharing partnerships with private entities to carry out a specified transformational coal technology program.</p> <p>Directs DOE to establish an advisory committee under the carbon capture and sequestration research and development program to review DOE progress in achieving the goals of this program, the coal and related technologies program, and the transformational coal technology program.</p> <p>Directs DOE to assess the cost and feasibility of engineering, permitting, building, maintaining, regulating, and insuring a national system of</p>

<p>Sec. 662 - Coal research, development, demonstration, and commercial application programs. (cont.)</p>	<p>carbon dioxide pipelines.</p>
<p>Sec. 663 - High efficiency gas turbines research and development.</p>	<p>Directs DOE, through the Office of Fossil Energy, to carry out a multiyear, multiphase program of research and development to:</p> <ul style="list-style-type: none"> • support innovative engineering and detailed gas turbine design for megawatt-scale and utility-scale electric power generation; • include technology demonstration through component testing, sub-scale testing, and full scale testing in existing fleets; • make field demonstrations of the developed technology elements so as to demonstrate technical and economic feasibility; and • assess overall combined cycle and simple cycle system performance. Specifies the goals of such multiphase program. <p>Specifies requirements for grants to and contracts with industry, small businesses, universities, and other appropriate parties to conduct activities under this program.</p>
<p>Subtitle F—Advanced Research Projects Agency—Energy</p>	
<p>Sec. 671 - ARPA-E amendments.</p>	<p>Amends the America COMPETES Act to revise ARPA-E goals to repeal specifications for:</p> <ul style="list-style-type: none"> • reductions of imports of energy from foreign sources; • reductions of energy-related emissions, including greenhouse gases; and • improvement in the energy efficiency of all economic sectors. <p>Bars ARPA-E from providing funding for a project unless the prospective grantee demonstrates sufficient attempts to secure private financing or indicates that the project is not independently commercially viable.</p> <p>Requires DOE, once every six years after the sixth year ARPA-E has been in operation, to offer to contract with the National Academy of Sciences to evaluate how well ARPA-E is achieving its goals and mission.</p> <p>Declares that specified categories of proprietary information collected by ARPA-E from recipients of</p>

Sec. 671 - ARPA-E amendments. (cont.)	financial assistance awards from ARPA-E shall be considered as privileged and confidential and not subject to disclosure pursuant to the FOIA.
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Title VII -- Department of Energy Technology Transfer (H.R. 1806)

Provision	Description
Subtitle B - Innovation Management at the Department of Energy	
Sec. 712 - 725	<p>Directs DOE to: (1) assess annually for Congress its ability to improve the technology transfer and commercialization of energy technologies, including the role and effectiveness of the Director of the Office of Technology Transitions; and (2) recommend policy and legislative changes to improve DOE ability to transfer new energy technologies successfully to the private sector.</p> <p>Permits the directors of national laboratories to use funds authorized to support technology transfer within DOE to carry out early-stage and pre-commercial technology demonstration activities to: (1) remove technology barriers that limit private sector interest, and (2) demonstrate potential commercial applications of any research and technologies arising from national laboratory activities.</p> <p>Authorizes DOE to enter into an agreement with the NSF to enable the participation of DOE researchers in the National Science Foundation Innovation Corps program.</p>

Title XXXIII - Nuclear Energy Innovation Capabilities (H.R. 4084)

Provision	Description
Sec. 3302-3310	<p>Amends the Energy Policy Act of 2005 to revise the objectives of the civilian nuclear energy research, development, demonstration, and commercial application programs of the Department of Energy (DOE) to emphasize:</p> <ul style="list-style-type: none"> • providing research infrastructure to promote scientific progress and enable users from academia, the National Laboratories, and the private sector to make scientific discoveries relevant for nuclear, chemical, and materials science engineering; and • enabling the private sector to partner with the National Laboratories to demonstrate

Sec. 3302-3310 (cont.)

novel reactor concepts for the purpose of resolving technical uncertainty associated with the aforementioned objectives.