

America Competes Reauthorization Act of 2015 – Democratic bill
Section by Section

TITLE I—OFFICE OF SCIENCE AND TECHNOLOGY POLICY; GOVERNMENT-WIDE
SCIENCE

SUBTITLE A—GENERAL PROVISIONS

SEC. 101. FEDERAL RESEARCH AND DEVELOPMENT FUNDING - Provides Findings for this Act.

SEC. 102. NATIONAL SCIENCE AND TECHNOLOGY COUNCIL AMENDMENTS. – Updates the National Science and Technology Council’s (NSTC) areas of policy recommendations to include innovation and STEM education as well as multi-agency solicitations and public-private partnerships.

SEC. 103. REVIEW OF FEDERAL REGULATIONS AND REPORTING REQUIREMENTS. – Establishes an interagency working group with the responsibility of evaluating federal regulations and reporting requirements across agencies that affect the conduct of research, in order to reduce regulatory burdens and harmonize and eliminate duplicative requirements.

SEC. 104. PRIZE COMPETITION AMENDMENTS. – Makes technical and clarifying amendments to Section 105 of the America Competes Act Reauthorization of 2010, which provides authority to federal agencies to run prize competitions to stimulate innovation.

SEC. 105. COORDINATION OF INTERNATIONAL SCIENCE AND TECHNOLOGY PARTNERSHIPS. -- Establishes a committee under NSTC with the responsibility to identify and coordinate international science and technology cooperation that can strengthen the U.S. science and technology enterprise, improve economic and national security, and support U.S. foreign policy goals.

SEC. 106. SCIENTIFIC AND TECHNICAL CONFERENCES. – Provides findings regarding the importance of attendance at scientific conferences for federal scientists and their agencies; Requires agencies within this Act to support employee attendance at scientific conferences within budget constraints; provides accountability measures to minimize cost of such attendance.

SUBTITLE B—REAUTHORIZATION OF THE NATIONAL NANOTECHNOLOGY
INITIATIVE

SEC. 111. SHORT TITLE. – “National Nanotechnology Initiative Amendments Act of 2014.”

SEC. 112. NATIONAL NANOTECHNOLOGY PROGRAM AMENDMENTS. – Makes updates to the Nanotechnology Research and Development Program including streamlining the advisory council and interagency committee reporting process and ensuring public and industry access to nanotechnology information, including information on user facilities.

SEC. 113. SOCIETAL DIMENSIONS OF NANOTECHNOLOGY. – Establishes a Coordinator for Environmental, Health, and Safety Research at OSTP who shall be responsible for oversight of the coordination, planning, and budget prioritization for EHS research. Also ensures that coordination and planning of EHS research is a priority for the agencies through the NNI interagency committee.

SEC. 114. NANOTECHNOLOGY EDUCATION. – Specifies that the Program should support efforts to introduce nanoscale science, engineering, and technology into undergraduate science and engineering education, including allowing remote access to nanotechnology facilities.

SEC. 115. TECHNOLOGY TRANSFER. – Requires participating agencies to provide access to companies to nanotechnology research facilities for prototype development. Requires the Program to coordinate with industrial sectors and state initiatives to benefit nanotechnology application development.

SEC. 116. SIGNATURE INITIATIVES IN AREAS OF NATIONAL IMPORTANCE. – Clarifies that the Program should support nanotechnology research and development focused on applications areas that have the potential for significant contributions to national economic competitiveness.

SEC. 117. NANOMANUFACTURING RESEARCH. – Requires Program to include research on the development of instrumentation and tools required for nanomanufacturing and approaches and techniques for scaling up nanomanufacturing production. Authorizes Program research centers to support green nanotechnology activities.

SEC. 118. DEFINITIONS. – Provides definitions for terms used in this subtitle.

SUBTITLE B—ENGINEERING BIOLOGY

SEC. 121. SHORT TITLE – ‘Engineering Biology Research and Development Act of 2015’

SEC. 121. FINDINGS – Provides findings for this subtitle

SEC. 123. DEFINITIONS – Provides definitions for terms used in this subtitle

SEC. 124. NATIONAL ENGINEERING BIOLOGY R&D PROGRAM – Establishes a National Engineering Biology R&D Program to advance societal well-being, national security, and economic competitiveness; describes Program Activities, including research, education and training, and activities to accelerate the translation and commercialization of engineering biology; describes how Program activities should take into account the ethical, legal, environmental, and other appropriate societal concerns; designates an Interagency Committee that would oversee the planning, management, and coordination of the Program; requires an annual report to Congress.

SEC. 125. ADVISORY COMMITTEE. – Designates an Advisory Committee consisting of non-Federal members, industry, and non-governmental representatives to provide advice on the Program; charges the Committee with specific responsibilities; requires Committee to evaluate and make recommendations for the Program at least every 5 years.

SEC. 126. EXTERNAL REVIEW OF ETHICAL, LEGAL, ENVIRONMENTAL AND SOCIETAL ISSUES. – requires a National Academy of Sciences workshop to review the ethical, environmental, societal, and health concerns related to engineering biology research and development.

SEC. 127. AGENCY ACTIVITIES. – Describes specific Program activities and responsibilities for NSF, NIST, NASA, DOE, and EPA.

TITLE II—STEM EDUCATION AND DIVERSITY

SUBTITLE A—STEM EDUCATION AND WORKFORCE

SEC. 201. SENSE OF CONGRESS. – Expresses a sense of Congress regarding soliciting stakeholder input on implementation of the Administration’s STEM Education Strategic Plan and the important role of science agencies in implementation of the plan.

SEC. 202. COORDINATION OF FEDERAL STEM EDUCATION. – Establishes a Coordinator for STEM Education at OSTP. Requires stakeholder input for all agency proposals that would consolidate or transfer functions for STEM education programs. Requires a report to Congress on agency proposals to consolidate or terminate STEM education programs above a certain threshold. Establishes a STEM Education Advisory Panel to advise the President on implementing the Federal STEM Education Strategic Plan.

SEC. 203. GRAND CHALLENGES IN EDUCATION RESEARCH. – Requires NSF and the Department of Education to identify, prioritize, and develop strategies to address grand challenges in research and development for pre- K-12 STEM education. Requires a report to Congress including metrics for assessing progress toward meeting the grand challenges, how the agencies will disseminate the results of the research, and how the agencies will support the implementation of best practices.

SEC. 204. NATIONAL RESEARCH COUNCIL REPORT ON STEAM EDUCATION – Requires a National Academies workshop and report examining how the integration of arts and design principles into STEM education can increase innovation, improve STEM learning outcomes, and increase the recruitment and retention of students into STEM studies and careers.

SEC. 205. ENGAGING FEDERAL SCIENTISTS AND ENGINEERS IN STEM EDUCATION.—Requires OSTP to develop guidance for Federal agencies to increase opportunities and training, as appropriate, for Federal scientists and engineers to participate in STEM engagement activities through their respective agencies and in their communities.

SUBTITLE B—STEM OPPORTUNITIES ACT OF 2015

SEC. 211. SHORT TITLE. – “STEM Opportunities Act of 2015.”

SEC. 212. PURPOSE. – Describes the purposes of this bill, including to promote research to increase understanding of participation and trajectories of women and underrepresented minorities (URMs) in STEM careers and to eliminate barriers for and promote the participation of women and URMs at institutions of higher education (IHEs) and Federal science agencies, including Federal labs.

SEC. 213. FEDERAL SCIENCE AGENCY POLICIES FOR CAREGIVERS. – Requires that OSTP provide guidance to science agencies on policies to provide certain accommodations to recipients of federal research awards who have caregiving responsibilities, and requires that science agencies implement such policies.

SEC. 215. POLICIES FOR REVIEW OF FEDERAL RESEARCH GRANTS. – Requires that OSTP, in collaboration with NSF, provide guidance to all science agencies on best practices to minimize the effects of implicit bias in the review of federal research grants, and that all science agencies establish policies based on such guidance.

SEC. 216. COLLECTION OF DATA ON DEMOGRAPHICS OF FACULTY. – Requires that NSF collect detailed demographic data about STEM faculty at IHEs every 5 years and that NSF publicly report statistical summaries of such data. Authorizes \$9 million for fiscal years 2016 — 2018 to design and complete the initial survey.

SEC. 217. CULTURAL AND INSTITUTIONAL BARRIERS TO EXPANDING THE ACADEMIC AND FEDERAL STEM WORKFORCE. – Requires that NSF develop guidance on best practices for IHE to identify and reduce cultural and institutional barriers to the recruitment, retention, promotion, and other indicators of participation and achievement of female and URM STEM faculty. Requires that, 3 years later, research intensive IHE's report to NSF on implementation of activities and policies based on such guidance and that NSF provide a summary report to Congress based on IHE reports. Requires OSTP to issue similar guidance to Federal labs and that Federal labs implement policies based on such guidance. Additionally, requires NSF to carry out a program of workshops to educate STEM department chairs at IHE's and senior managers at Federal labs about the potential effects of implicit bias in the career advancement of academic and Federal STEM researchers. Requires organizations receiving grants to carry out workshops to report to NSF on rates of attendance and other metrics, and requires NSF to provide a summary report to Congress. Authorizes \$10 million for fiscal years 2016 — 2020 to carry out this section.

SEC. 218. RESEARCH AND DISSEMINATION AT THE NATIONAL SCIENCE FOUNDATION. – Authorizes NSF to award grants to analyze data collected and evaluate policies implemented under this Act and to collaborate with other science agencies and IHE's to clarify and harmonize work- life accommodation policies and practices. Authorizes \$25 million for fiscal years 2016 — 2020 to carry out this section.

SEC. 219. REPORT TO CONGRESS. – Requires, no later than 4 years after enactment, that OSTP report to Congress on the status and impact of policies required under Sections 213, 215, and 217.

SEC. 220. NATIONAL SCIENCE FOUNDATION SUPPORT FOR INCREASING DIVERSITY AMONG STEM FACULTY AT INSTITUTIONS OF HIGHER EDUCATION. – Authorizes NSF to award grants to IHE's for the development of innovative reforms designed to recruit, retain, and advance individuals from URM groups in academic STEM careers. Authorizes \$50 million for fiscal years 2016 — 2020 for this purpose.

SEC. 221. NATIONAL SCIENCE FOUNDATION SUPPORT FOR BROADENING PARTICIPATION IN UNDERGRADUATE STEM EDUCATION. – Authorizes NSF to award grants to IHE's to fund the implementation or expansion of research-based reform efforts aimed

at recruiting and retaining students from URM groups. Authorizes \$75 million for fiscal years 2016 — 2020 for this purpose.

SEC. 222. DEFINITIONS. – Provides definitions for terms used in this subtitle.

TITLE III—NATIONAL SCIENCE FOUNDATION

SUBTITLE A—GENERAL PROVISIONS

SEC. 301. AUTHORIZATIONS OF APPROPRIATIONS. – Authorizes 5% year over year increases for the National Science Foundation (NSF) for fiscal years 2016 – 2020, beginning with President’s request level for FY 2016, for a total of \$42.5 billion, including specific authorizations for research and related activities (R&RA), education and human resources (EHR), major research equipment and facilities construction (MREFC), agency operations and award management, the National Science Board (NSB), and the Office of Inspector General.

SEC. 302. FINDINGS AND SENSE OF CONGRESS ON SUPPORT FOR ALL FIELDS OF SCIENCE AND ENGINEERING. – Provides findings regarding the importance of NSF investments in social, behavioral, and economic (SBE) sciences; Expresses the Sense of Congress that NSF should continue to support competitive - merit-reviewed basic research across all fields of science and engineering, including SBE sciences.

SEC. 303. NATIONAL SCIENCE FOUNDATION MERIT-REVIEW. – Expresses Sense of Congress regarding the strength and importance of NSF’s current merit-review system

SEC. 304. MANAGEMENT AND OVERSIGHT OF LARGE FACILITIES. – Requires the NSF Director to maintain a Large Facilities Office to support the research directorates in the development and implementation of major research facilities; to appoint a senior agency official within the Office of the Director with the responsibility for major research facilities oversight; and to ensure that construction cost policies are consistent with best practices.

SEC. 305. SUPPORT FOR POTENTIALLY TRANSFORMATIVE RESEARCH. – Requires the NSF Director to establish and update grant solicitation, merit review, and funding policies and mechanisms designed to identify and provide support for high-risk, high-reward research.

SEC. 306. STRENGTHENING INSTITUTIONAL RESEARCH PARTNERSHIPS. – In cases where a research grant involves a partnership of colleges and universities, including a minority-serving institution or a predominately undergraduate institution, the Director is required to award

funds to at least two of the institutions directly, including at least one minority-serving or predominately undergraduate institution.

SEC. 307. INNOVATION CORPS. – Expresses the sense of Congress that the National Science Foundation’s Innovation Corps (I-Corps) is at the leading edge of a strong, lasting foundation for an American innovation ecosystem. Requires the Director to carry out a program to award grants for entrepreneurship and commercialization education.

SEC.308. DEFINITIONS. – Provides definitions for terms used in this subtitle.

SUBTITLE B—STEM EDUCATION

SEC. 321. CONSOLIDATION OF STEM ACTIVITIES.— Requires the National Science Board to review, evaluate, and make recommendations regarding NSF’s portfolio of STEM education programs and activities at the pre K-12 and undergraduate levels, including informal education, and report their findings to Congress within 1 year.

SEC. 322. MODELS FOR GRADUATE STUDENT SUPPORT. –Requires a National Academies review and report on NSF’s current portfolio of programs for supporting STEM graduate students, including any recommendations for improving such programs.

SEC. 323. UNDERGRADUATE STEM EDUCATION REFORM. – Authorizes the Director to award grants to reform undergraduate STEM education to increase the number and quality of students completing STEM degrees and improve STEM learning outcomes for all undergraduate students. Requires an interdirectorate working group on undergraduate STEM education reform to identify and implement opportunities for reform across the Foundation.

SEC. 324. ADVANCED MANUFACTURING EDUCATION. – Authorizes the Director to award grants to community colleges, in partnership with industry, to reform and expand advanced manufacturing education in order to ensure the advanced manufacturing workforce has the skills to meet regional economic needs.

SEC. 325. STEM EDUCATION PARTNERSHIPS.— Clarifies the intent of NSF’s Mathematics and Science Education Partnerships to include all STEM fields.

SEC. 326. NOYCE TEACHER SCHOLARSHIP PROGRAM. — Authorizes NSF to support master teaching fellows who have a bachelor’s degree in a STEM field and are enrolled in a master’s degree program under the Noyce Program.

SEC. 327. INFORMAL STEM EDUCATION. – Requires NSF to continue to support informal STEM education, including both R&D on innovative new models for out-of-school STEM learning and research that advances the field of informal STEM education.

SEC. 328. RESEARCH AND DEVELOPMENT TO SUPPORT IMPROVED K-12 LEARNING. Authorizes NSF to support R&D on alignment, implementation, impact, and ongoing improvement of standards and equivalent learning expectations used by States in math, science, and other State-based STEM standards.

TITLE IV—NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

SEC. 401. SHORT TITLE. – “National Institute of Standards and Technology Authorization Act of 2014.”

SEC. 402. AUTHORIZATION OF APPROPRIATIONS. – Authorizes 5% year over year increases for the National Institute of Standards and Technology (NIST) for fiscal years 2016 – 2020, beginning with the President’s request for FY 2016, for a total of \$7.3 billion, including \$4.1 billion for NIST laboratory activities, \$325 million for construction and maintenance of facilities, and \$1.5 billion for industrial technology services.

SEC. 403. HOLLINGS MANUFACTURING EXTENSION PARTNERSHIP. – Updates the Hollings Manufacturing Extension Partnership program to increase flexibility, improve transparency, and strengthen program management by reducing the cost share requirement to 50 percent, allowing for multi-year awards, requiring the development of conflict of interest policies, streamlining, and strengthening accounting requirements, and requiring periodic recompetition.

SEC. 404. NATIONAL ACADEMY OF SCIENCES REVIEW. – Requires the Director of NIST to enter into a contract with the National Academy of Sciences to conduct a comprehensive review of NIST’s laboratory programs.

SEC. 405. IMPROVING NIST COLLABORATION WITH OTHER AGENCIES.— Authorizes the Secretary of Commerce to accept, use, and spend Federal, State, and non-governmental acquisition and assistance funds as well as share personnel, associates, facilities, and property with partner organizations in furthering the mission of the Institute.

SEC. 406. MISCELLANEOUS PROVISIONS. – Clarifies NIST’s provision of transportation services to include associates, fellows, and employees. Authorizes the Secretary of Commerce to

protect Institute buildings, equipment, employees, and other persons located within the Institute. Removes the cap on the number of post-doctoral fellows the Institute can employ per year.

TITLE V—INNOVATION

SEC. 501. OFFICE OF INNOVATION AND ENTREPRENEURSHIP. – Updates and strengthens the Department of Commerce’s Office of Innovation and Entrepreneurship by specifying that the Office should have a Director and full-time staff, requiring the office to oversee the implementation of the Regional Innovation Program and to develop a comprehensive strategic plan. Clarifies the role of the Office’s advisory committee by requiring the development of a report to Congress assessing the strategic plan and providing recommendations to improve the operation of the Office. Authorizes \$25 million for the Office for fiscal years 2016 – 2020.

SEC. 502. FEDERAL LOAN GUARANTEES FOR INNOVATIVE TECHNOLOGIES IN MANUFACTURING. – Authorizes \$100 million for Manufacturing Loan Guarantee Program for fiscal years 2016 — 2020.

SEC. 503. INNOVATION VOUCHER PILOT PROGRAM. – Requires the Secretary of Commerce to establish an innovation voucher pilot program through the States that would provide small and medium-sized manufacturers with vouchers to acquire R&D or innovation expertise to increase their competitiveness. Requires the Secretary to submit a plan to Congress that will serve as a guide for the program as well as a report to Congress to assess the impact of activities, and provide any recommendations to improve the program. Authorizes \$25 million for the program for fiscal years 2016 — 2020.

SEC. 504. FEDERAL ACCELERATION OF STATE TECHNOLOGY COMMERCIALIZATION PILOT PROGRAM. – Requires the Secretary of Commerce to establish a Federal Acceleration of State Technology Commercialization Pilot Program that would accelerate the commercialization of innovative technologies by leveraging Federal support for State commercialization efforts. Authorizes \$150 million for the program for fiscal years 2016 — 2018.

TITLE VI – DEPARTMENT OF ENERGY

SUBTITLE A – OFFICE OF SCIENCE

SEC. 601. SHORT TITLE. –“Department of Energy Office of Science Authorization Act of 2015”

SEC. 602. DEFINITIONS. – Provides definitions for terms used in this subtitle.

SEC. 603. MISSION OF THE OFFICE OF SCIENCE. – Directs the Secretary to carry out research, development, demonstration, and commercial application activities in science supporting the missions of the Department, including programs on basic energy sciences, biological and environmental research, advanced scientific computing research, fusion energy sciences, high energy physics, and nuclear physics. Instructs the Department’s Under Secretary for Science and Energy to ensure the coordination with the other activities of the Department, and support joint activities among the Department’s programs. Requires a report to Congress assessing the ability of domestic manufacturers to meet the procurement requirements for major Office of Science projects.

SEC. 604. BASIC ENERGY SCIENCES PROGRAM. – Directs the Director of the Office of Science to carry out a program in basic energy sciences, including materials sciences and engineering, chemical sciences, biosciences, and geosciences, for the purpose of providing the scientific foundations for new energy technologies.

As part of this program, the Director is instructed to support:

- 1) construction and operation of the program’s major user facilities,
- 2) competitively awarded energy frontier research centers, and
- 3) relevant accelerator research and development activities in coordination with the Office of Science’s High Energy Physics and Nuclear Physics programs.

SEC. 605. BIOLOGICAL AND ENVIRONMENTAL RESEARCH. – Authorizes a program of research, development, demonstration, and commercial application in the areas of biological systems science and climate and environmental science to support the energy and environmental missions of the Department.

The biological systems science research includes activities to:

- 1) increase understanding of complex biological systems to accelerate breakthroughs in the sustainable production of biomass-based liquid transportation fuels, bioenergy, and biobased materials,
- 2) continue support for the bioenergy research centers, and

- 3) strengthen efforts to examine the effects of exposure to low dose radiation.

The climate and environmental science research includes:

- 1) subsurface biogeochemical research, with a focus on accelerating the decontamination of relevant facilities managed by the Department and on carbon sequestration, and
- 2) continued research in regional and global climate modeling.

SEC. 606. ADVANCES SCIENTIFIC COMPUTING RESEARCH PROGRAM. – Directs the Director to carry out a research, development, demonstration, and commercial application program to advance computational and networking capabilities to analyze, model, simulate, and predict complex phenomena relevant to the development of new energy technologies and the competitiveness of the United States. Instructs the Secretary to produce a plan to integrate and leverage the expertise and capabilities of the program, as well as other relevant computational programs and resources supported by the Federal Government, to advance the missions of the Department’s applied energy and energy efficiency programs. Authorizes research and development activities in applied mathematics and high-end computing software development, including mathematics, models, and algorithms for complex systems as well as programming environments, tools, languages, and operating systems for high-end computing systems. Establishes a program to develop an exascale computing capability through the support of two or more National Laboratory-industry-university partnerships to conduct integrated research, development, and engineering of multiple exascale architectures. Instructs the Secretary to, at least 18 months prior to the initiation of construction or installation of any exascale-class computing facility, produce a plan detailing the proposed facility’s cost projections and capabilities to significantly accelerate the development of new energy technologies.

SEC. 607. FUSION ENERGY SCIENCES PROGRAM. – Directs the Director to carry out a fusion energy sciences research and development program on the scientific and engineering challenges to building a cost-competitive fusion power plant and a fusion power industry in the United States.

As part of this program, the Director is instructed to:

- 1) coordinate and carry out the responsibilities of the United States with respect to the ITER international fusion project,
- 2) support a portfolio of alternative and enabling magnetic fusion energy concepts,
- 3) support fusion materials research and development activities in coordination with the Assistant Secretary for Nuclear Energy, and
- 4) produce a 10-year prioritization plan.

In addition, the Secretary is instructed to establish a research and technology development program in inertial fusion for energy applications.

SEC. 608. HIGH ENERGY PHYSICS PROGRAM. – Directs the Director to carry out a research program on the elementary constituents of matter and energy and the nature of space and time.

As part of this program, the Director is instructed to support –

- 1) construction and operation of facilities and major items of equipment recommended in the most recent report of the Particle Physics Project Prioritization Panel,
- 2) research in the nature of the neutrino, dark energy, and dark matter, and
- 3) development of advanced accelerator concepts and technologies to reduce the necessary scope and cost for the next generation of particle accelerators.

SEC. 609. NUCLEAR PHYSICS PROGRAM. – Directs the Director to carry out a research program, and support relevant facilities, to discover and understand various forms of nuclear matter. The Director is also instructed to carry out a program for the production of isotopes, including the development of techniques to produce isotopes, for research applications.

SEC. 610. SCIENCE LABORATORIES INFRASTRUCTURE PROGRAM. – Directs the Director to carry out a program to improve the safety, efficiency, and mission readiness of infrastructure at Office of Science laboratories. The program shall include projects to renovate space that does not meet research needs, replace facilities that are no longer cost effective to renovate or operate, remove excess facilities, and construct modern facilities to conduct advanced research in controlled environmental conditions.

SEC. 611. AUTHORIZATION OF APPROPRIATIONS. – Authorizes 5% year over year increases for the Office of Science for fiscal years 2016 – 2020, for a total of \$29.5 billion.

SUBTITLE B – ADVANCED RESEARCH PROJECTS AGENCY-ENERGY

SEC. 621. SHORT TITLE. –“ARPA-E Reauthorization Act of 2015”

SEC. 622. ARPA-E AMENDMENTS. – Ensures that sensitive proprietary information collected by ARPA-E from private sector recipients of awards is not subject to disclosure through a Freedom of Information Act request. Authorizes 5% year over year increases for ARPA-E for fiscal years 2016 – 2020, for a total of \$1.8 billion.

SUBTITLE C – ENERGY INNOVATION

SEC. 641. ENERGY INNOVATION HUBS. – Directs the Secretary to carry out a program to establish and operate Energy Innovation Hubs that will conduct and support research, development, demonstration and commercial application of advanced energy technologies. Where practicable, these activities should occur in a central location. Each Hub created shall be focused on a particular unique advanced energy technology. The Secretary will ensure that the program is coordinated with other Department research entities as appropriate. Outlines the requirements that must be met by an applicant consortium in order to be eligible to form a Hub. A consortium must be made up of at least two qualifying entities who have created a binding agreement documenting the partnership agreement, measures to ensure cost-effective implementation, a proposed budget, a plan for managing intellectual property rights, and an accounting structure. Instructs the Secretary to select consortia for grants to establish and operate a Hub through a competitive process. Any grant made to a Hub shall be for a period no longer than five years and may be renewed through a competitive process. A Hub already in existence on the date of the enactment of this Act may continue to receive support for a period of five years beginning on the date of establishment that Hub. Prohibits any funds granted by the Secretary to a Hub to be used for construction of a new building or facility for Hub activities. Furthermore, construction of new buildings or facilities shall not be considered as part of the non-Federal share of a Hub cost-sharing agreement.

SEC. 642. PARTICIPATION IN THE INNOVATION CORPS PROGRAM. – Directs the Secretary to enter into an agreement with the Director of the National Science Foundation to enable researchers funded by the Department to participate in the Innovation Corps program.

SEC. 643. TECHNOLOGY TRANSFER. – Requires a report to Congress assessing the ability of the Department to carry out the technology transfer goals of relevant provisions in the Energy Policy Act of 2005, including the role and effectiveness of the Director of the Office of Technology Transitions. Permits the directors of the national laboratories to exercise Agreements for Commercializing Technology authority and to execute such agreements with non-Federal entities, including those who have received funds from other Federal sources, to sponsor research and development activities at the National Laboratories. Permits the directors of the national laboratories to use technology transfer funds to carry out technology maturation activities, thus allowing the labs to use these funds to identify potential commercial application opportunities and to demonstrate applications of their research and technologies. Instructs the Secretary to delegate signature authority for certain technology transfer agreements with a total cost of not more than \$500,000 to the directors of the national laboratories.

SEC. 644. ELIMINATION OF COST SHARING REQUIREMENT FOR RESEARCH AND DEVELOPMENT ACTIVITIES CONDUCTED BY UNIVERSITIES AND NONPROFIT INSTITUTIONS. – Exempts universities and nonprofit institutions from the 20 percent cost

sharing requirement that exists for the conduct of applied research and development activities supported by the Department.

SEC. 645. RENAME UNDER SECRETARY FOR SCIENCE TO UNDER SECRETARY FOR SCIENCE AND ENERGY. – Renames the Under Secretary for Science as the Under Secretary for Science and Energy, reflecting the recent reorganization of the Department to improve coordination of its full spectrum of energy activities, from basic research through commercial application.

SEC. 646. SPECIAL HIRING AUTHORITY FOR SCIENTIFIC, ENGINEERING, AND PROJECT MANAGEMENT PERSONNEL. – Provides limited flexible hiring authority to the Under Secretary for Science and Energy to assist the Department in meeting specific project or research needs. The term of any employee appointed under this section cannot exceed 3 years, and the Under Secretary has the authority to terminate the employee at any time based on performance or the changing project or research needs of the Department.