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## Senate committee approves legislation to set broad science policy for DOE R&D programs

## March 8, 2018

The Senate Committee on Energy and Natural Resources approved the Department of Energy Research and Innovation Act (H.R.589/S.2503) by voice vote on March 8, 2018. This recent action comes over a year after the House passed H.R.589 and it was referred to the Senate committee for consideration in January 2017. The act, first introduced by Representative Lamar Smith (R-TX-21) in the House, aims to provide the Department of Energy (DOE) with specific guidance on energy science research coordination and reforms to streamline national laboratory management. The act is comprised of four main legislative components or titles

Title I, Laboratory Modernization and Technology Transfer, aims to transfer increasingly commercially viable energy technologies developed by DOE national laboratories to the private sector. Specifically, the section would facilitate public-private partnerships through the new Agreements for Commercializing Technology pilot program, which allows national laboratories to enter agreements with third parties at their discretion. It would also exempt higher education and non-profit institutions from DOE cost sharing requirements for two years, and would develop a new public database of all existing grants and cooperative agreements of unclassified DOE research projects to aid in the technology transfer.

Title II, DOE Research Coordination, amends part of the America COMPETES Act (P.L. 111-358) to protect proprietary information collected by the Advanced Research Projects Agency – Energy (ARPA-E) from recipients of financial awards. The title directs the Department to identify key areas for collaboration across science and applied research programs, and develop a program to enhance the economic, environmental, and energy security of the United States by making awards available to associations for creating and operating "Energy Innovation Hubs." It also aims to identify programs that would be run more efficiently by the sates or the private sector, and eliminate substandard performance and duplicative research programs at DOE. Title III, DOE Office of Science Policy, provides statutory direction and priorities for programs at the Office of Science and the Office of Energy Efficiency and Renewable Energy. This includes conducting research in basic energy, biological and environmental research, high-performance computing, subatomic particle physics, low-dose radiation exposure, and fusion energy research. Specifically, Title III authorizes DOE to carry out extensive artificial photosynthetic research as part of a new Solar Fuels Research Initiative, and chemical to electrical energy conversion research as part of a new Electrical Storage Research Initiative. It also directs DOE to build a research program for developing exascale super computing capabilities and to support research in high-performance computing and networking relevant to energy applications.

Title IV, Nuclear Energy Innovation and Capabilities, focuses on developing advanced nuclear technology research and development (R&D) activities at DOE, and, in particular, supports novel reactor concepts such as fast neutron source reactors. This title aims to facilitate cooperative research between the DOE national laboratories, the private sector, and universities by allowing privately funded reactor prototypes to be constructed and operated at DOE sites and implementing a timeline for DOE to complete construction of an open-access user facility.

The DOE Research and Innovation Act promotes a number of programs that the President's fiscal year (FY) 19 budget proposal targeted for dramatic reductions, including the Office of Energy Efficiency and Renewable Energy and ARPA-E. However, at the ARPA-E Annual Summit on March 14, Secretary of Energy Rick Perry hailed ARPA-E innovation as "impressive" and "one of the reasons DOE is having a profound impact on American lives." The following day, at the House Appropriations Subcommittee on Energy and Water budget hearing, Secretary Perry indicated that he would follow "the will of the committee" with respect to appropriations.

Sources: GovTrack, Library of Congress, U.S. House Committee on Appropriations, U.S. Senate Committee on Energy and Natural Resources, Washington Post