

April 14, 2016

Fusion Energy Sciences

The Fusion Energy Sciences program supports basic research and experimentation aiming to harness nuclear fusion for energy production. The Committee recommends \$450,000,000 for Fusion Energy Sciences, \$12,000,000 above fiscal year 2016 and \$51,822,000 above the budget request. Within available funds, the recommendation provides not less than \$74,090,000 for the National Spherical Torus Experiment (NSTX) and not less than \$82,100,000 for DIII-D.

University-led research helps further U.S. research in fusion energy and trains the next generation of scientists. The Department shall submit not later than 180 days after the enactment of this Act a report summarizing the Fusion Energy Sciences program's current collaboration with universities and an explanation for its relevant funding allocations.

Research. - The Committee recommends \$207,027,000 for burning plasma science foundations; \$41,569,000 for burning plasma science long pulse; and \$76,404,000 for discovery plasma science. Within available funds, the recommendation provides \$15,000,000 for International Research; \$18,000,000 for High Energy Density Laboratory Plasmas; \$25,000,000 for Theory; and \$15,000,000 for Scientific Discovery through Advanced Computing. The Committee supports the fusion energy science community's continued efforts hosting workshops to advance and plan for the long term vision of the fusion energy sciences field. The Department is directed to hold additional workshops and submit not later than 180 days after the enactment of this Act a report summarizing these efforts.

Construction. - The Committee recommends \$125,000,000 for the U.S. contribution to the ITER project. The Committee continues to believe the ITER project represents an important step forward for energy sciences and has the potential to revolutionize the current understanding of fusion energy. However, cost increases and major schedule delays have brought uncertainty as to whether the project may still be completed within a reasonable baseline. The fiscal year 2016 Act included language directing the Secretary to recommend by May 2, 2016, that the U.S. either remain a partner in the ITER project or terminate its participation. The Committee notes that the Secretary's recommendation may require a change to the recommended level of funding for the ITER project and awaits the decision. The Committee directs the Department to submit not later than December 1, 2016, a follow-up report to its May 2, 2016, report updating findings on its ITER recommendations.