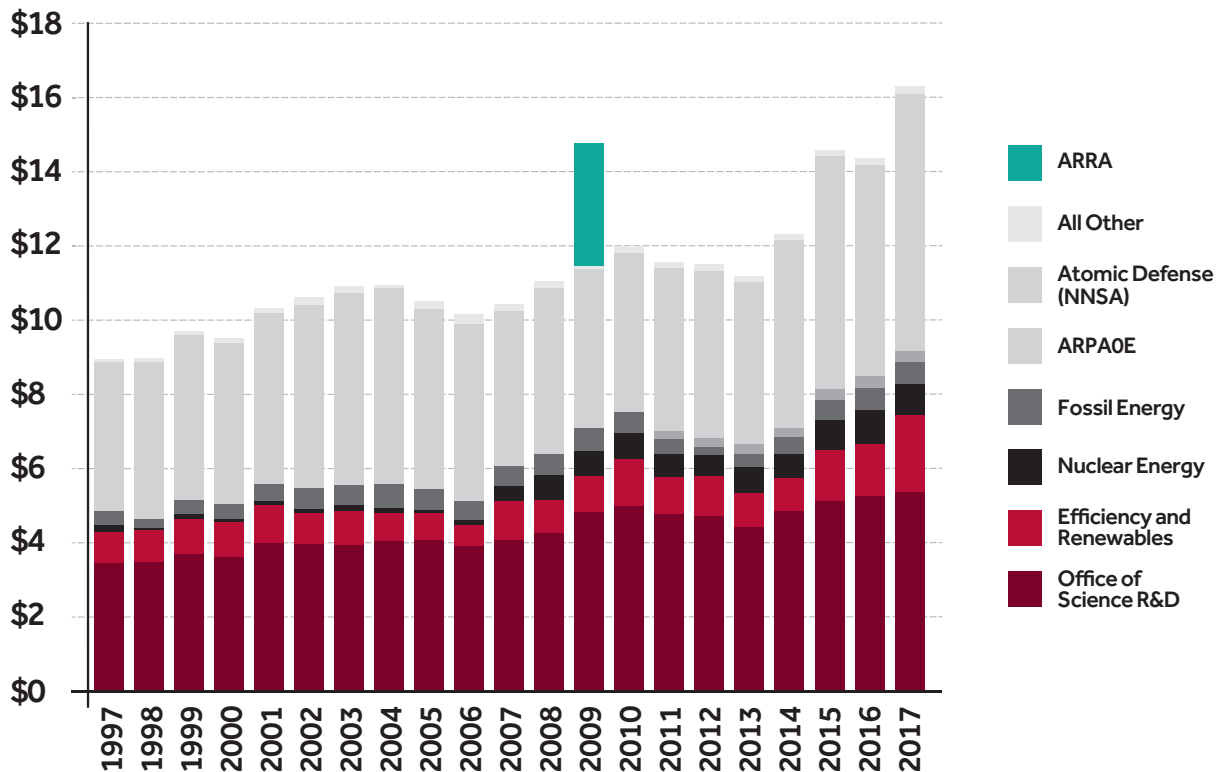


# DEPARTMENT OF ENERGY RESEARCH

**STONY BROOK UNIVERSITY** urges Congress to provide at least \$6.6 billion for the Department of Energy Office of Science in FY19.

The Department of Energy Office of Science is critical to advancing U.S. science and energy frontiers. DOE is the leading source of federal investment in basic physical science research, providing nearly 47 percent of total funding. In fields such as high energy and nuclear physics, nuclear medicine, heavy element chemistry, plasma physics, and magnetic fusion, DOE is the primary government sponsor. In addition to the physical sciences, DOE plays a key role in ensuring continued U.S. leadership in other fields of scientific research including the biological sciences, computing, and engineering.

## TRENDS IN DOE R&D, FY 1997-2017 IN BILLIONS OF CONSTANT FY 2016 DOLLARS



Source: Past AAAS R&D reports, OMD and agency budget documents, and appropriations documents, R&D includes conduct of R&D and R&D facilities. FY 2017 is the President's request. © 2016 AAAS

The DOE Office of Science supports the world's largest collection of major scientific user facilities across the country. Annually, DOE supports more than 33,000 researchers from universities, industry, and federal agencies at 28 user facilities. These facilities include particle accelerators, experimental reactors, high-precision instruments, synchrotrons and light sources, supercomputers, and high-resolution mass spectrometers.

SBU co-manages Brookhaven National Laboratory (BNL), a DOE funded world renowned facility performing groundbreaking research and developing game-changing technologies to meet the world's current and future energy needs.

### **Highlights from Stony Brook University's Recent DOE Funded Research:**

- Revolutionizing batteries—SBU scientist Dr. Esther Takeuchi, recipient of the prestigious National Medal of Technology and Innovation, developed the miniature battery that powers most of the world's lifesaving pacemakers and personal defibrillators. Her research now focuses on storing energy generated by wind and solar power.
- Enhancing the performance of Reactivity Controlled Compression Ignition (RCCI), an emerging combustion technology that has the potential to simultaneously reduce fuel consumption and emissions, while providing Americans with greater freedom of mobility at lower costs.
- Developing a new cost-effective High Temperature Superconductor (HTS) cable, which would provide the foundation for the next generation electric power grid worldwide.

### ***DOE funding supports Stony Brook's Advanced Energy Research and Technology Center (AERTC)***

A national leader of energy research, Stony Brook's AERTC partners with other universities and research institutions, energy providers, private industry, New York State and DOE to develop advanced, cutting-edge technologies that explore ways of producing and promoting clean energy.



**Stony Brook  
University**