



# U.S. DEPARTMENT OF **ENERGY**

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**FOR IMMEDIATE RELEASE**  
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## **Energy Secretary Chu Announces \$1.2 Billion in Recovery Act Funding for Science**

Upton, NY -- Energy Secretary Steven Chu announced \$1.2 billion in new science funding under the American Recovery and Reinvestment Act for major construction, laboratory infrastructure, and research efforts sponsored across the nation by the DOE Office of Science. Secretary Chu made the announcement during a visit to the Brookhaven National Laboratory.

“Leadership in science remains vital to America’s economic prosperity, energy security, and global competitiveness,” said Secretary Chu. “These projects not only provide critically needed short-term economic relief but also represent a strategic investment in our nation’s future. They will create thousands of jobs and breathe new life into many local economies, while helping to accelerate new technology development, renew our scientific and engineering workforce, and modernize our nation’s scientific infrastructure.”

The DOE Office of Science is the steward of ten National Laboratories in eight states across the nation and constructs and operates large-scale scientific facilities such as advanced light sources and nanoscale science research centers that provide the cutting-edge tools of today’s advanced energy and physical science research. Many of the Recovery Act projects are focused on these widely used National Laboratory facilities. The package also provides substantial support for both university- and National Laboratory-based researchers, working on problems in fields ranging from particle and plasma physics to biofuels, solar energy, superconductivity, solid state lighting, electricity storage and materials science, among others.

The Department is poised to move aggressively on these projects--many already existing, some new--to ensure maximum jobs impact and scientific payoff. At the same time, the Department has put in place controls to ensure a high level of accountability, transparency, and responsibility in the deployment of these taxpayer dollars.

Included among the approved projects are, among others:

- \$150 million to accelerate ongoing construction on the National Synchrotron Light Source-II at Brookhaven National Laboratory, in Upton, New York. This new, state-of-the-art high intensity light source is expected to facilitate major breakthroughs in next-generation energy technologies, materials science and biotechnology. Ultimately, it could lead to advances in battery technology and photovoltaics.
- \$123 million for major construction, modernization, and needed decommissioning of laboratory facilities at Oak Ridge National Laboratory (ORNL), in Oak Ridge Tennessee; Lawrence Berkeley National Laboratory (LBNL), in Berkeley, California; and Brookhaven National Laboratory.
- \$65 million to accelerate construction of the 12-Billion Electron Volt Upgrade of the Continuous Electron Beam Accelerator Facility (CEBAF) at Thomas Jefferson National Accelerator Facility (TJNAF) in Newport News, Virginia. The CEBAF upgrade will provide an international community of physicists with a cutting-edge facility for studying the basic building blocks of the visible universe. The advanced particle accelerator technology being developed for this project also has had important medical applications.
- \$277 million for Energy Frontier Research Centers, to be awarded on a competitive basis to universities and DOE National Laboratories across the country. These centers will accelerate the transformational basic science needed to develop plentiful and cost-effective alternative energy sources and will pursue advanced fundamental research in fields ranging from solar energy to nuclear energy systems, biofuels, geological sequestration of carbon dioxide, clean and efficient combustion, solid state lighting, superconductivity, hydrogen research, electrical energy storage, catalysis for energy, and materials under extreme conditions.
- \$90 million for other core research, providing support for graduate students, postdocs, and Ph.D. scientists across the nation. This will create jobs and stimulate the economy both directly - in creating and saving research jobs - as well as through scientific advancements that ultimately can be applied in the marketplace.
- \$69 million to create a national scale, prototype 100-gigabit per second data network linking research centers across the nation. This effort will enhance the Office of Science's networking capabilities and benefit the commercial telecommunications sector.

- \$330 million for operations and equipment at Office of Science major scientific user facilities, used annually by over 20,000 researchers. Facilities supported by Recovery Act funding include, among others, the Spallation Neutron Source at ORNL, the world's most intense pulsed accelerator-based neutron source, used in advanced materials science, chemistry, and biology research; the Nanoscale Science Research Centers, located at five National Laboratories nationwide, which provide world-leading nanotechnology instrumentation; the ARM Climate Research Facility, a collection of climate measurement facilities located around the globe that gather atmospheric data needed to reduce uncertainty about climate change; the Environmental Molecular Sciences Laboratory, at Pacific Northwest National Laboratory (PNNL), which provides unique instrumentation and computational capabilities for environmental science; and the Linac Coherent Light Source, currently under construction at the SLAC National Accelerator Laboratory (SNAL) in Menlo Park, CA, which will enable scientists for the first time to observe chemical reactions at the molecular level in real time.
- In addition, the Recovery Act funding provides \$125 million for needed infrastructure improvements across nine DOE national laboratories: Ames Laboratory in Ames, Iowa; Argonne National Laboratory, in Argonne, Illinois; Brookhaven National Laboratory; Fermi National Accelerator Laboratory in Batavia, Illinois; LBNL; ORNL; PNNL in Richland, WA; SNAL; and TJNAF.

The Department of Energy is the nation's leading sponsor of basic research in the physical sciences, with 17 national laboratories, and also supports researchers at more than 300 colleges and universities nationwide. History has shown that investments in science pay for themselves many times over.

The \$1.2 billion is the first installment of a total of \$1.6 billion allocated to the DOE Office of Science by Congress under the Recovery Act legislation. Officials are working on details remaining to enable approval and release of the balance of \$371 million.

Attached is a more detailed breakdown of how today's funding announcement affects a number of DOE's National Laboratories around the country. Also attached is a fact sheet on how investments in science can generate jobs and economic recovery.



## **National Laboratory Recovery Act Funding at a Glance**

Of the \$1.2 billion Secretary Chu announced today, some \$830.2 million will be going to Office of Science National Laboratories for a range of construction, infrastructure, equipment acquisition, and research efforts, including \$688.4 million for projects already allocated, as follows:

### **Ames Laboratory (Ames, Iowa) -- \$1.7 million**

Acceleration of an energy conservation modernization initiative designed to save 15% of overall laboratory energy consumption.

### **Argonne National Laboratory (Argonne, IL) -- \$13.1 million**

Needed upgrades and replacement of major electrical switches and equipment at the oldest of the nation's National Laboratories, a first step toward rehabilitation of the laboratory's central campus, for research in computational and energy sciences.

### **Brookhaven National Laboratory (Upton, NY) -- \$184.3 million**

The largest share for accelerated construction of NSLS-II, as noted above. Smaller sums for construction of an Interdisciplinary Sciences Building, to house high-accuracy instruments for research in solar energy, biofuels, solid state lighting, and superconductivity. Building repairs and improvements, and accelerated acquisition of equipment for experiments at the Relativistic Heavy Ion Collider, an atom smasher that has made headlines from its revelations of conditions in the early universe.

### **Fermi National Accelerator Laboratory (Batavia, IL) -- \$34.9 million**

Accelerated construction of 15-kiloton neutrino detector in Ash, Minnesota--part of an experiment designed to understand the asymmetry between matter and anti-matter that makes the physical universe possible--and infrastructure projects including power and cooling to maintain continuity of operations at the laboratory's central computer control center.

**Lawrence Berkeley National Laboratory (Berkeley, CA) -- \$115.8 million**

Accelerated construction of the Advanced Light Source User Support Building, supporting advanced materials, energy, and biology research. Major decommissioning of an obsolete facility, and a range of important laboratory improvements under a seismic safety initiative, including construction and renovation to support advanced biological research for DOE missions.

**Oak Ridge National Laboratory (Oak Ridge, TN) -- \$71.2 million**

The lion's share for laboratory modernization, including construction of a Multipurpose Laboratory Facility for advanced materials and chemistry research; infrastructure repairs and improvements and a smaller amount for equipment for a new beamline at the Spallation Neutron Source, used in advanced materials and energy research.

**Pacific Northwest National Laboratory (Richland, WA) -- \$124 million**

The largest share for accelerated acquisition of equipment for the Environmental Molecular Sciences Laboratory and for the ARM Climate Research Facility, an international multi-site facility that measures atmospheric effects, and a smaller sum for energy conservation projects at the laboratory.

**SLAC National Accelerator Laboratory (Menlo Park, CA) -- \$68.3 million**

Accelerated acquisition of equipment for plasma physics experiments, modernization of electrical equipment, and strengthening of several buildings as part of a seismic upgrade.

**Thomas Jefferson National Accelerator Facility (Newport News, VA) -- \$75 million**

The largest share for the 12 Giga Electron Volt Upgrade of the Continuous Electron Beam Accelerator Facility mentioned above and a smaller sum for laboratory infrastructure improvements.