

under the San Joaquin River Restoration Fund. The House proposed no similar provision.

The conference agreement includes a provision proposed by the Senate regarding the Desert Terminal Lakes Program. The House proposed no similar provision.

TITLE III

DEPARTMENT OF ENERGY

The summary tables at the end of this title set forth the dispositions with respect to the individual appropriations, programs, and activities of the Department of Energy. Additional items in the Act are discussed below.

The conference agreement provides \$25,748,081,000 for the Department of Energy, instead of \$24,722,046,000 as proposed by the House and \$25,548,976,000 as proposed by the Senate, to fund programs in its five primary mission areas: science, energy, environment, nuclear non-proliferation and national security.

Contractor Pensions and Benefits.—The conferees support actions taken to improve headquarters oversight of contractor pensions and other post-retirement benefits. Given the government has assumed the long-term liability for pension costs, the conferees encourage the Department to evaluate alternatives to contractually formalize requirements for the management of pension and other post-retirement benefits. Instead of the House direction on reporting requirements for pensions and prohibition on contribution amounts, the conferees direct the Department to report current plan status, funding ratios, reimbursement levels, projected plan status at budgeted levels, and any updates to funding ratios and contributions with or as supplemental information to the budget request. This information should be updated in April and September of each year. Changes to expected contribution levels should be clearly explained and the Department should note any changes in plan management that have impacted contribution amounts. Any funding request which proposes a contribution in excess of the minimum ERISA or Pension Protection Act requirements should include a detailed justification.

Nuclear Safety.—Instead of the House direction for a safety review of all cleanup sites, the conferees direct the Secretary of Energy to review all Department of Energy nuclear facility construction projects with a total project cost greater than \$1,000,000,000 to determine if those projects are being managed in a way which could pressure contractors or Department managers to disregard nuclear safety in order to demonstrate acceptable project performance. The review should investigate contract management, including the award of contractor fee, project management practices, and the framing of program and policy goals to evaluate if Department practices have complicated efforts to foster a positive nuclear safety culture or resolve nuclear safety-related design issues. The Secretary shall report to the House and Senate Committees on Appropriations no later than May 1, 2012, on improvements to contracting and other management practices which will assist Department managers in ensuring that design flaws and safety issues do not go ignored or unrecognized.

H-Canyon.—Instead of the House requirement to provide funding to the National Academy of Sciences, the Department shall conduct its own review to explore the full range of potential uses for the chemical processing areas of H-Canyon at the Savannah River Site and report back to the House and Senate Committees on Appropriations within 3 months of enactment of this Act. The options considered should not be limited to uses by the Office of Environmental Management, but should incorporate uses which may contribute to meeting the goals of other program offices within the Department of Energy and the National Nuclear Security Administration.

Exascale Computing.—The conferees support the Department's initiative to develop exascale computing as a crucial component of long-term U.S. leadership, but are concerned that the Department has not yet developed an integrated strategy and program plan. The Department is directed to submit to the House and Senate Committees on Appropriations, not later than February 10, 2012, a joint, integrated strategy and program plan for the crosscutting effort to develop exascale computing that includes:

- a target date for developing an operational exascale platform;
- interim milestones toward reaching that target;
- minimum requirements for an exascale system, including power consumption efficiency goals;
- multi-year budget estimates for the exascale initiative and costs of meeting each interim milestone;
- clear roles and responsibilities for each office involved in exascale research and development; and
- a complete listing of exascale activities included in the fiscal year 2013 budget request broken out by program, project and activity with comparisons to the current year's funding levels.

Energy Innovation Hubs.—For each Energy Innovation Hub funded in this Act, the Department is directed to deliver to the House and Senate Committees on Appropriations, not later than 120 days after enactment of this Act, a report detailing milestones and performance goals for the end of each of the Hub's five fiscal years, and specific milestones and performance criteria the Hub must meet to be considered for a second five-year term. For Hubs established in prior fiscal years, the report shall include current performance against planned milestones, and a summary of progress against plans for staffing and facilities. For new Hubs, the report shall include a plan and timeline for selecting an awardee.

PCAST Recommendations.—The conferees direct the Secretary of Energy, within 6 months of enactment of this Act, to submit a report detailing how the Department has or will implement in all Energy Programs the following features that have been used successfully in ARPA-E and highlighted by the President's Council of Advisors on Science and Technology:

- a rigorous review process;
- contract or grant negotiations completed in just a few months;

- co-location within the program offices of such support functions as procurement, contracts, human resources, and information technology services; and
- an agile and innovative workforce.

REPROGRAMMING REQUIREMENTS

The conference agreement carries the Department's reprogramming authority in statute to ensure that the Department carries out its programs consistent with congressional direction, as proposed by the House. This modified provision includes reprogramming authority internal to each account, as long as no program, project or activity is increased or decreased by more than \$5,000,000 or 10 percent, compared to the levels included in the "Conference" column in the "Department of Energy" table included under the heading "Title III—Department of Energy" in this joint explanatory statement. No new transfer authority between accounts other than that explicitly granted in this Act is included or implied. The conferees expect the Department to use this additional flexibility to improve budget execution, meet emergent program needs, and reduce program costs. For reallocations above the \$5,000,000 or 10 percent cumulative threshold, a reprogramming request must be submitted to the House and Senate Committees on Appropriations for consideration and may not be implemented prior to approval by the Committees. Any reallocation of new or prior-year budget authority or prior-year de-obligations, or any request to implement a reorganization which includes moving previous appropriations between appropriations accounts must be submitted to the House and Senate Committees on Appropriations in writing and may not be implemented prior to approval by the Committees.

Definitions.—A reprogramming includes the reallocation of funds from one program, project or activity to another within an appropriation.

The conferees are concerned the Department is over-committing future budgets by announcing multi-year awards subject to future appropriations for a substantial portion of activities within Energy Programs. The Department is directed to transition to a model in which it fully funds multi-year awards with appropriated funds, except in the cases of major capital projects, management and operating contracts, and large research centers which require multi-year awards subject to appropriations. As part of that transition, the conference agreement includes a provision requiring that any multi-year award must be subject to appropriations and the Department must notify the House and Senate Committees on Appropriations at least 14 calendar days prior to public announcement of the award. The Department shall deliver each notification as a cumulative list of all notifications under this subsection, to include: recipient; appropriations account, program, and activity; award date; total amount of award; amount awarded from fiscal year 2012 appropriations; amount awarded from prior appropriations; amount awarded subject to future appropriations; and an explanation of the special circumstances justifying commitment of future funds. The conferees do not include a House provision prohibiting the use of multi-year awards, but will reconsider this legisla-

the amount requested to improve health and safety by cleaning up existing contamination and improving the seismic standards of buildings within Department laboratory grounds. The conference agreement directs the Department to provide a report on Small Sites as directed in the House and Senate reports within 3 months of enactment of this Act.

URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING FUND

The conference agreement provides \$472,930,000 for activities funded from the Uranium Enrichment Decontamination and Decommissioning Fund, instead of \$449,000,000 as proposed by the House and \$429,000,000 as proposed by the Senate. This amount includes post closure contract liabilities, pensions, and community and regulatory program support. The conference agreement does not include the House provision restricting the Department's use of up to \$150,000,000 in proceeds from the barter, transfer, or sale of uranium to carry out uranium enrichment facility decontamination and decommissioning and remedial actions.

The conferees are aware that the Department has yet to alter the contractual mechanism by which it has been transferring uranium to a contractor in exchange for additional cleanup services at Portsmouth in order to correct the violations of federal law cited in the Government Accountability Office's report "Clarifying DOE's Disposition Options Could Help Avoid Further Legal Violations" (GAO-11-846). This type of arrangement continues to be off-budget and inappropriately bypasses the congressional appropriations process. There is also considerable concern that the increasing amount of uranium being transferred could destabilize the uranium market and thereby adversely impact our domestic uranium mining industry.

The conferees request the Comptroller General to report to the Committees on Appropriations of the House of Representatives and the Senate, not later than March 15, 2012, on the progress the Department has made in resolving the concerns raised in GAO-11-846. To increase transparency into Department of Energy actions, the Department shall fully adhere to the reporting requirements in this Act and have a current determination by the Secretary that any barter, transfer or sale of uranium carried out by the Department will not have an adverse material impact on the domestic uranium mining, conversion, or enrichment industry. The Department is further directed to provide the full details of any proposed barter, transfer or sale of uranium in its fiscal year 2013 budget request.

SCIENCE

The conference agreement provides \$4,889,000,000 for Science, instead of \$4,800,000,000 as proposed by the House and \$4,842,665,000 as proposed by the Senate.

The conference agreement includes the House direction for a report regarding underrepresented college minorities in science, technology, engineering, and mathematics areas.

In order to increase transparency and accountability across all Science activities, the Department is directed, not later than September 1, 2012, to create a performance ranking of all ongoing multi-year research projects across the six major Science research programs, including those at universities, national laboratories, Energy Frontier Research Centers, Energy Innovation Hubs and other recipients, by comparing current performance with original project goals. The report shall include an inventory of the number and dollar amount of awards that have been terminated in fiscal years 2011 and 2012 before their multi-year awards have concluded.

The conferees direct the Department to provide to the House and Senate Committees on Appropriations, not later than February 10, 2012, a budget scenario for fiscal years 2013 and 2014 with the Office of Science funded at the fiscal year 2012 level, highlighting funding levels for each major program and project, including activities, such as ITER, with scheduled changes in funding requirements.

Advanced Scientific Computing Research.—The conferees provide \$442,000,000 for Advanced Scientific Computing Research. The conferees support the exascale initiative, but note that future funding for the initiative is contingent upon delivery of the joint exascale plan, as directed. The conferees provide the budget request for the Leadership Computing Facilities and for High Performance Production Computing, in support of continuing petascale upgrades at the three facilities.

Basic Energy Sciences.—The conference agreement provides \$1,694,000,000 for Basic Energy Sciences. The conference agreement includes \$24,300,000 to continue the Fuels from Sunlight Energy Innovation Hub, and \$20,000,000 to establish the Batteries and Energy Storage Energy Innovation Hub. The conference agreement includes up to \$100,000,000 for the existing Energy Frontier Research Centers; \$10,000,000 for predictive modeling of internal combustion engines; \$8,520,000 for the Experimental Program to Stimulate Competitive Research; and no funding for gas hydrates research within the Office of Science.

The conference agreement includes \$97,000,000 to fund each major item of equipment at the level provided in the budget request. Funding provided for the Linac Coherent Light Source II at SLAC is for the exploration and design of the two-tunnel option.

Biological and Environmental Research.—The conference agreement provides \$611,823,000 for Biological and Environmental Research. Within available funds, the conference agreement includes \$12,000,000 to continue nuclear medicine research with human application. The conferees direct the Department to report to the House and Senate Committees on Appropriations, not later than June 1, 2012, on the Administration's strategy to continue funding this research through more appropriate federal agencies with health-focused missions.

Within available funds, \$16,000,000 is provided for radiobiology to help determine health risks from exposures to low levels of ionizing radiation to properly protect radiation workers and the general public, and to conduct studies of health impacts at and around the Fukushima Daiichi nuclear plant.

Fusion Energy Sciences.—The conference agreement provides \$402,177,000 for Fusion Energy Sciences, of which not more than \$105,000,000 is for U.S. Contributions to ITER. The conference agreement includes \$24,741,000 for the High Energy Density Laboratory Plasma program, of which \$12,000,000 is to be evenly distributed among heavy-ion fusion, laser-driven fusion, and magneto-inertial fusion. The conference agreement includes direction for the submission of a 10-year fusion plan as provided by both the House and Senate.

High Energy Physics.—The conference agreement provides \$791,700,000 for High Energy Physics research.

The conferees understand that the United States has unique capabilities to develop a world-leading neutrino science program. To begin the transition to the intensity frontier, the conferees provide \$21,000,000 for the Long Baseline Neutrino Experiment, which includes \$17,000,000 for research and development and \$4,000,000 for project engineering and design. The conferees provide no funding for long-lead procurements or construction activities. The conferees are concerned that this project is not mature enough for construction because a location and technology for the underground detectors has not been selected. Before consideration of congressional approval of construction, the Department is directed to provide to the House and Senate Committees on Appropriations a detailed project plan and refined total cost estimate for construction, not later than April 1, 2012.

Within available funds, the conferees provide \$15,000,000 as requested, \$10,000,000 within High Energy Physics and \$5,000,000 within Nuclear Physics, to support minimal, sustaining operations at the Homestake Mine in South Dakota.

Nuclear Physics.—The conference agreement provides \$550,000,000 for Nuclear Physics. Within available funds, the conference agreement includes \$22,000,000 for the Facility for Rare Isotope Beams, and \$50,000,000 for the 12 GeV upgrade of the Continuous Electron Beam Accelerator Facility.

Workforce Development for Teachers and Scientists.—The conference agreement provides \$18,500,000 for Science Workforce Development. Within available funds, up to \$5,000,000 is for the graduate fellowship program to fund the existing cohort established in fiscal year 2010.

Science Laboratories Infrastructure.—The conference agreement provides \$111,800,000 for Science Laboratories Infrastructure.

Safeguards and Security.—The conference agreement provides \$82,000,000 for Safeguards and Security.

Science Program Direction.—The conference agreement provides \$185,000,000 for Science Program Direction. No funds shall be used to hire new site office personnel, except for field staff at the Integrated Support Centers in Chicago and Oak Ridge.

NUCLEAR WASTE DISPOSAL

The conference agreement provides \$0 for nuclear waste disposal, instead of \$25,000,000 as proposed by the House.

DEPARTMENT OF ENERGY
(Amounts in thousands)

	Budget Request	Conference

NON-DEFENSE ENVIRONMENTAL CLEANUP		
Fast Flux Test Reactor Facility (WA).....	2,703	2,703
Gaseous Diffusion Plants.....	100,588	100,588
Small sites.....	57,430	67,430
West Valley Demonstration Project.....	58,400	65,000
Floor amendment.....	---	---
Rescission.....	---	---
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TOTAL, NON-DEFENSE ENVIRONMENTAL CLEANUP.....	219,121	235,721
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URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING FUND		
Oak Ridge.....	182,747	200,856
Paducah.....	77,780	81,807
Portsmouth.....	243,642	190,267
Rescission.....	---	---
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TOTAL, UED&D FUND/URANIUM INVENTORY CLEANUP.....	504,169	472,930
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SCIENCE		
Advanced scientific computing research.....	465,800	442,000
Basic energy sciences:		
Research.....	1,833,600	1,542,600
Construction:		
07-SC-06 Project engineering and design (PED)		
National Synchrotron light source II (NLSL-II)	151,400	151,400
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Subtotal, Basic energy sciences.....	1,985,000	1,694,000
Biological and environmental research:		
Biological systems science.....	376,262	---
Climate and environmental sciences.....	341,638	---
Research.....	---	611,823
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Subtotal, Biological and environmental research.....	717,900	611,823
Fusion energy sciences program.....	399,700	402,177
High energy physics:		
Research.....	756,200	763,700
Construction:		
11-SC-40 Project engineering and design (PED)		
long baseline neutrino experiment, FNAL.....	17,000	4,000
11-SC-41 Project engineering and design (PED)		
muon to electron conversion experiment, FNAL ..	24,000	24,000
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Subtotal.....	41,000	28,000
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Subtotal, High energy physics.....	797,200	791,700
Nuclear physics:		
Operations and maintenance.....	539,300	500,000

DEPARTMENT OF ENERGY
 (Amounts in thousands)

	Budget Request	Conference

Construction:		
06-SC-01 Project engineering and design (PED) 12 GeV continuous electron beam accelerator facility upgrade, Thomas Jefferson National Accelerator facility (was project 07-SC-001), Newport News, VA.....	66,000	50,000

Subtotal, Nuclear physics.....	605,300	550,000
Workforce development for teachers and scientists.....	35,600	18,500
Science laboratories infrastructure:		
Infrastructure support:		
Payment in lieu of taxes.....	1,385	1,385
Excess facility disposal.....	---	---
Oak Ridge landlord.....	5,493	5,493

Subtotal.....	6,878	6,878
Construction:		
11-SC-71 Utility infrastructure modernization at TJNAF.....	---	---
12-SC-70 Science and user support building, SLAC.....	12,086	12,086
10-SC-70 Research support building and infrastructure modernization, SLAC.....	12,024	12,024
10-SC-71 Energy sciences building, ANL.....	40,000	40,000
10-SC-72 Renovate science laboratory, Phase II, BNL.....	15,500	15,500
09-SC-72 Seismic life-safety, modernization and replacement of general purpose buildings Phase 2, PED/Construction, LBNL.....	12,975	12,975
09-SC-74, Technology and engineering development facilities PED, TJNAF.....	12,337	12,337

Subtotal.....	104,922	104,922

Subtotal, Science laboratories infrastructure...	111,800	111,800
Safeguards and security.....	83,900	82,000
Science program direction:		
Science program direction.....	216,863	185,000
Headquarters.....	---	---
Office of Science and Technical Information.....	---	---
Field offices.....	---	---

Subtotal, Science program direction.....	216,863	185,000

Subtotal, Science.....	5,418,863	4,889,000
Rescission.....	---	---
Use of prior year balances.....	-2,749	---

TOTAL, SCIENCE.....	5,416,114	4,889,000
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DIVISION B: ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT 2012
HR 2055

(Amounts in Thousands)

	FY 2011 Enacted	FY 2012 Request	Conference	Conference vs. Enacted
Rescission.....	-400	---	---	+400
Subtotal.....	95,009	123,957	105,000	+9,991
Non-defense environmental clean up.....	224,350	219,121	235,721	+11,371
Rescission.....	-900	---	---	+900
Subtotal.....	223,450	219,121	235,721	+12,271
Uranium enrichment decontamination and decommissioning fund.....	506,984	504,169	472,930	-34,054
Rescission.....	-9,900	---	---	+9,900
Subtotal.....	497,084	504,169	472,930	-24,154
Science.....	4,857,665	5,416,114	4,889,000	+31,335
Rescission.....	-15,000	---	---	+15,000
Subtotal.....	4,842,665	5,416,114	4,889,000	+46,335
Nuclear Waste Disposal.....	---	---	---	---
Rescission.....	-2,800	---	---	+2,800
Subtotal.....	-2,800	---	---	+2,800
Advanced Research Projects Agency-Energy.....	179,640	550,011	275,000	+95,360
Innovative Technology Loan Guarantee Program.....	58,000	38,000	38,000	-20,000
Offsetting collection.....	-58,000	-38,000	-38,000	+20,000