

DOE PROGRAM IMPACTS UNDER A ONE-YEAR CONTINUING RESOLUTION (CR)

(OCTOBER 1, 2006 THROUGH SEPTEMBER 30, 2007)

The FY 2007 One-Year Continuing Resolution (CR) is expected to set spending limits for the Department at the FY 2006 enacted appropriations level less the one-time government-wide 1% rescission. In addition, in estimating the effect of a full-year CR, the Department has assumed that there would be no new starts, no functional transfers, and no earmarks in FY 2007. An earmark under this exercise is defined as any increase over the FY 2006 Congressional Request. *[This also assumes that if Congress provided additional funds to accommodate an earmark, the Program Office "loses" the funding increase but does not have to fund the activity. For instances where Congressional direction was to "fund within available resources" to accommodate an earmark, the Program Office does NOT lose the program dollars and does not have to fund the activity.]* The following is an assessment of the major impacts of a FY 2007 one-year CR based on the assumptions highlighted above.

CRITICAL IMPACTS

SCIENCE APPROPRIATION

Basic Energy Sciences

Overall reductions Basic Energy Sciences (BES) wide for researchers and students are anticipated to be 295 – 320 relative to the FY 2006 level. SC's newest accelerator-based facility, the \$1.4B Spallation Neutron Source, would not operate at all in FY 2007, and thus its ramp-up to full power and full user program would be delayed by one full year. Overall, the number of users will drop by 25%; this is a decrease of about 2,000-3,000 users. The National Synchrotron Light Source-II project will layoff 50 staff. Relative to the planned level in the FY 2007 Budget request, BES programs would be unable to have on board 850–1,000 staff, comprised of existing researchers and students and proposed new hires.

Biological and Environmental Research

A recently announced solicitation, designed to support the Bioenergy Research Centers, for new technology development in the area of biofuel development, particularly hydrogen and ethanol, will be cancelled and no research awards made; reducing support for innovative technology to facilitate generating biomass and microbes amenable to enhanced biofuels production. Also, six to twelve layoffs are anticipated at the Environmental Molecular Sciences Laboratory User facility, impacting cleanup research.

Fusion Energy Sciences

Domestic and international ITER efforts would be limited to \$29.3M (half the planned level) resulting in reduction of 50-75 FTEs (with some at the Oak Ridge National Lab) and slowing the progress of design and R&D of U.S. hardware contributions by 12 months. This would increase ITER total project cost by \$15-30M over the current

funding limit of \$1.122B. The U.S. commitments to the International ITER Organization would be maintained and the USIPO Management and Work Breakdown Structure team leaders are retained.

An alternative that would have to be considered in light of the signing of the ITER Agreement in November 2006, and the US commitment described therein would be to reduce the balance of the base program by \$15.7M in order to maintain a \$45M minimal funding level for ITER. This would result in the termination of NSTX (PPPL), suspension of operations at C-Mod (MIT) for at least one year, and a reduction of operations at DIII-D (GA) by ~20%. In this scenario, a reduction of greater than 100 FTEs is likely throughout the fusion program.

High Energy Physics

A year-long CR at the FY2006 funding level, with no further relief, will result in severe impacts to the program. A one-month furlough of all Fermilab employees will be necessary, except for personnel essential for safety and security, along with one month less of Tevatron facility operations. An estimated 120 RIFs will occur broadly across the HEP program, but mostly at SLAC (contractors) and universities (grantees), with the largest impact on International Linear Collider R&D program, HEP's highest R&D priority for a future facility. It will take several years to recover from the loss of skilled technical staff in this area.

Nuclear Physics

For the Nuclear Physics program scientific research personnel at all levels will be significantly reduced. One-time mitigations applied in FY 2006 to deal with the ~9% reduction in funding in that year are not available in FY 2007. About 120-135 researchers and students would be lost. RHIC (at BNL/NY) will not run in FY 2007; ATLAS (at ANL/IL) will only run for 20% of planned levels; and CEBAF (at JLab/VA) and HRIBF (at ORNL/TN) would each run at about half of the planned schedule. In all cases the loss of experienced expertise will significantly impact the scientific productivity in the short and long-term. The delay in programs and projects impact not only the U.S. research community, but also the many international researchers that participate in the programs at these facilities.

ENERGY SUPPLY AND CONSERVATION APPROPRIATION

OFFICE OF NUCLEAR ENERGY

Global Nuclear Energy Partnership (GNEP): The FY 2006 appropriation provided \$10 million over the request (considered an earmark) to accelerate design activities associated with a proposed Engineering Scale Demonstration (ESD) for GNEP, with related design activities planned for FY 2007. Elimination of this \$10 million will negatively impact DOE's ability to make progress on GNEP and would result in the termination of some R&D activities at National Laboratories, and would not allow the program to support industrial involvement in the program in FY 2007. The Advanced Fuel Cycle Initiative (AFCI) will only be funded at \$70 million (i.e., the Department's

FY 2006 Congressional Request), eliminating the Department's ability to implement the Global Nuclear Energy Partnership (GNEP). This funding shortfall will culminate in the inability of the Office of Nuclear Energy to appropriately support a mid-2008 Secretarial decision on the path forward and implementation of GNEP. Specifically:

- The U.S. would continue to fall behind in demonstrating proliferation-resistant recycling technologies and their positive benefit to repository capacity, and would not meet GNEP Presidential Initiative nonproliferation goals.
- The Secretary of Energy would not have adequate information to inform a mid-2008 decision, as that decision requires information not currently available on the cost, scope, and schedule of recycling and reactor facilities; technology risk reduction; and, a business plan that may include significant cost sharing with the government.
- Essential fuel cycle R&D would be seriously impacted, resulting in redirection of critical National Laboratory staff and contractors currently dedicated to GNEP. The Department would be forced to reduce or terminate essential fuel cycle R&D activities presently planned or underway at National Laboratories (including Idaho National Laboratory, Oak Ridge National Laboratory, and Argonne National Laboratory), which will limit the demonstration of proliferation-resistant recycling technologies and their impact on repository capacity.

POWER MARKETING ADMINISTRATIONS

For **Southwestern**, substantial reductions will take place in Program Direction and Operations and Maintenance, which affects its ability to maintain its system reliability. Compliance with the reliability requirements of the North American Electric Reliability Council (NERC), which has been established as the Electric Reliability Organization by the Federal Energy Regulatory Commission (FERC), pursuant to the provisions of the Energy Policy Act of 2005, will also be jeopardized.

The Transmission System Reliability in Oklahoma, Arkansas, and Missouri would be areas where the impact will occur.

Southeastern is attempting to comply with recently mandated North American Electric Reliability Council (NERC) requirements, which are in place to assure the maintenance of system reliability. Program Direction funding levels at the FY 2006 amounts would jeopardize the ability to maintain compliance with the reliability requirements of the (NERC), which has been established as the Electric Reliability Organization by the Federal Energy Regulatory Commission (FERC), pursuant to the provisions of the Energy Policy Act of 2005. The FY 2007 request amount would mitigate this problem.

DEPARTMENTAL ADMINISTRATION (DA)

If the programs within the DA appropriation are funded at the FY 2006 appropriation level at a total of \$258.0M (total DA operations), the following two programs will experience major impacts:

- **Chief Information Officer:**
 - **Cyber Security** – If this activity remains at the FY 2006 funding level of \$24.7M, DOE will not be able to support the development of a complex wide expansion of the Department's early-warning and incident management capability to deal with emerging and increasing cyber threats. At the FY 2006 level the Department is vulnerable to increasing cyber attacks.
- **Office of Human Capital Management:** At the FY 2006 level, the Office of Human Capital Management will be forced to implement a hiring freeze and would not be able hire the remaining 25 FTEs to fully implement the Most Efficient Organization from the A-76 competitive sourcing study. As a result, Staff training services provided across the complex (they provide 80% of the services in DOE) would be severely reduced.

NNSA/WEAPONS ACTIVITIES APPROPRIATION

- Inertial Confinement Fusion and High Yield Campaign and NIF Construction Project:
 - There is a potential FTE layoffs of up to 450 contractor employees in 8 states (CA, NM, NY, OH, NV, MD, VA, TX). Program activities potentially affected include:
 - High Average Power Laser Program: MD/VA: 110; CA: 50;
 - University activities: 70 (including OH, TX, NV);
 - NIF Ignition program: NM: 80; CA: 50; NY 50 (NIF construction completed on schedule);
 - Z machine operations: NM: 40

NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA)/OFFICE OF THE ADMINISTRATOR APPROPRIATION

- This new rate would be below the current CR "not to exceed" rate (\$345.5M currently, \$338.5 new). Operating at this lower level will not result in the layoff of Federal workers but may require dismissal of support service contractors at DOE Headquarters (Washington metropolitan area) and the Albuquerque, NM office.
- A hiring freeze will continue with exceptions for only the most critical positions as determined by the Administrator on a case by case basis. Also, there will be minimal hiring of the Future Leader Intern Program that will create a serious gap in staffing and training of entry level employees needed for succession in the next 3 years and therefore will cripple NNSA's ability to meet its future goals and mission.
- Travel will be constrained to less than 75% of the FY 2007 Request level which will eliminate executive movements to accommodate management redirection complex-

wide, and cause operational problems for the international activities of the nuclear nonproliferation programs.

LOAN GUARANTEE PROGRAM

The Department strongly supports the EAct 2005 Title XVII Loan Guarantees Program. Under an extended CR, DOE would be unable to establish a new office dedicated to this purpose. DOE recommends including bill language (see below) providing \$7M as startup costs.

Authorization

- Title XVII of EAct 2005 authorizes DOE to accept borrower payments to pay for the cost of the loan guarantees (as calculated under the Federal Credit Reform Act of 1990 (FCRA)), rather than having to seek and obtain discretionary appropriations of taxpayer dollars to cover those costs. EAct 2005 also requires DOE to collect fees to pay for DOE's administrative costs. However, FCRA explicitly requires that before loan guarantees can be issued, they must be authorized in an appropriations act. EAct 2005 is not an appropriations act, nor did EAct 2005 state that it was amending FCRA.
- DOE therefore needs authorization in an appropriations act to issue loan guarantees.
- The language proposed below for the program would be budget neutral. No actual outlays would be required and the program should not count against any applicable appropriations cap.

Funding

- Dedicated funding for the loan guarantees program is warranted not only because of the scope of the activities to be addressed by the program, but also because of the authorization that allows the Department to collect and expend fees to offset the administration costs of this program as called for by EAct 2005 section 1702(h).
- It is anticipated that once the program is fully operational, the request for the administration of the program will be offset by collections from an administrative fee. For FY 2007, the Department estimates that \$7M is required to support this program. This will cover the salaries and other costs associated with FTEs to ensure the fair and equitable administration of the program. It will also allow the program to acquire the highly technical financial and technological expertise needed to assess and evaluate proposals seeking federal loan guarantees.

Proposed Legislative Language: *Subject to the Federal Credit Reform Act of 1990, as amended, during fiscal year 2007 commitments to guarantee loans under Title XVII of the Energy Policy Act of 2005 shall not exceed a total principal amount, any part of which is to be guaranteed, of \$2,000,000,000: Provided, That there are hereby appropriated for the cost of the guaranteed loans such sums as are hereafter derived from amounts received from borrowers pursuant to section 1702(b)(2) of that Act, to*

remain available until expended: Provided further, That the source of payments received from borrowers for the subsidy cost shall not be a loan or other debt obligation that is made or guaranteed by the federal government.

In addition, for necessary administrative expenses to carry out this Loan Guarantee Program, \$7,000,000, to remain available until expended: Provided, That fees collected pursuant to section 1702 (h) shall be credited as offsetting collections to this account: Provided, further, That the sum herein appropriated shall be reduced by the amount of fees received during fiscal year 2007, so as to result in a fiscal year 2007 appropriation from the General Fund estimated at \$0: Provided further, That any fees collected in excess of the amount appropriated herein shall not be available until appropriated.