PNNL. The Committee provides $5,000,000, within available funds, at the National Energy Technology Laboratory associated with electricity transmission, distribution, and energy assurance activities.

The Committee recommends $17,000,000, an increase of $4,991,000, for Operations and Analysis. This funding is provided for Permitting, Siting, and Analysis. These funds were transferred from the Wind Energy Office to coordinate renewable energy integration with the electricity system.

NUCLEAR ENERGY PROGRAMS

Appropriations, 2006	$535,660,000
Budget estimate, 2007	632,698,000
House allowance	499,805,000
Committee recommendation	711,285,000

The Committee recommendation for the Office of Nuclear Energy is $711,285,000, an increase of $151,533,000 above the request.

Global Nuclear Energy Partnership.—The Committee recognizes and appreciates the considerable investment this administration has made in this area and supports efforts to close the nuclear fuel cycle. It is imperative that the Federal Government support long-term research to discover ways to reduce the amount of nuclear waste and recycle the vast amount of untapped energy that remains in the current once-through nuclear fuel cycle. Faced with the reality of long-term storage needs and the fact that our Nation is unlikely to permit and license more than one permanent repository, our best alternative is to vastly reduce the amount of waste, the heat content, and the radiotoxicity of the spent fuel before permanent disposal. The President has proposed the Global Nuclear Energy Partnership as a multi-pronged technical approach to close the nuclear fuel cycle and encourage the recycling of uranium and destruction of long-lived actinides through advanced reactor technology. The budget supports the development of recycling technologies that have the opportunity to enhance the proliferation resistance of existing recycling or separation technologies. By utilizing the proposed UREX approach, scientists will not separate pure plutonium. The Committee expects the Department to continue to fully integrate proliferation resistant controls within the recycling technology. The Committee has provided additional funding within the National Nuclear Security Administration, Office of Nuclear Nonproliferation to support long-term research and deployment of improved nuclear safeguards to enhance proliferation resistance and to allow for the safe expansion of nuclear power. The Committee encourages the Department to involve private industry in the GNEP program through competitive grants.

University Reactor Fuel Assistance and Support.—From within available funds provided to the NERI program, the Committee recommends $10,000,000 to support fuels research for the Next Generation Nuclear Reactor. The Committee is disappointed the Department has eliminated funding for this program without warning. Universities depend on technical support from the Department, and the nuclear industry relies on the Universities to provide academic training to the next generation of nuclear scientists, reactor operators, and experts trained in health physics. The Committee is

pleased with the success this program has had thus far and recognizes that a more modest level of funding is appropriate. The Committee supports this activity again this year and directs the Department to provide $27,000,000 to support the University Reactor Infrastructure and Education Initiative that was eliminated in the fiscal year 2007 budget request and strongly encourages the administration to budget for these activities in fiscal year 2008.

RESEARCH AND DEVELOPMENT

The Committee recommendation for nuclear energy research and development includes a total of $446,655,000, an increase of $99,533,000.

Nuclear Power 2010.—The Committee has included $88,000,000, an increase of $33,969,000 to support the development license application for new nuclear power plant designs under the Nuclear Regulatory Commission's Combined Operating License [COL] process. The Committee believes this program is critical and has consistently provided additional funding to accelerate this effort in the past. The Committee understands the appetite for funding this program continues to grow beyond what the Department has budgeted and the level of funding the Committee can provide. It is clear that the original budget baselines were not sufficient and additional work is needed. Therefore, the Department must ensure that the limited Federal funds are applied in the most effective and useful fashion. The Department should focus funding on supporting the design and engineering work of the two reactors designs. The Department should also eliminate any unnecessary overhead charges incurred by the Department and its industry partners for this program. The Committee supports the Department's decision to contract directly with two reactor vendors to support a standardized nuclear plant design that can validate the untested regulatory licensing process. The Committee also has significant concerns with financial conduct of the industry consortium involved in the NP2010 program. The Committee expects that the Department work with its industry partners to instill fiscal discipline and ensure conformity to the Federal budget rules and standards.

Nuclear Hydrogen Initiative.—The Committee recommends $31,665,000 for nuclear hydrogen research and development, an increase of $9,000,000. The added funding will be matched with $9,000,000 from the Solar program to support the creation of a hydrogen pilot plant using a sulfur-based thermo chemical process coupled with the Department of Energy's National Solar Thermal Test Facility as the proxy for a high temperature nuclear reactor. Deployment of this pilot-scale demonstration by 2010 will accelerate the completion of a commercial scale facility by 2015, the date at which automakers are expected to make a decision on commercial deployment of hydrogen cars. This demonstration is also consistent with objectives established in sections 643, 812(a), 934 and 974 of the Energy Policy Act, 2005. The Committee recommendation also includes $5,000,000 for the UNLV Research Foundation to continue research and development of high temperature heat exchangers and chemical processing equipment to permit demonstration of nuclear-powered production of hydrogen from water.