

NUCLEAR ENERGY RESEARCH INITIATIVE

3. NERI ACCOMPLISHMENTS

In FY1999, the Department received 308 investigator-initiated R&D proposals from U.S. universities, national laboratories, and industry. The initial FY1999 NERI procurement was completed with the award and issuance of grants, cooperative agreements, and laboratory work authorizations for 46 R&D projects involving research participants from 45 U.S. universities, laboratories and industrial organizations. Thirty-two of the projects involved collaborations of multiple organizations. In addition, 11 foreign R&D organizations participated in NERI collaborative projects.

The FY1999 NERI appropriation was \$19 million. The duration of these annually funded awards is one to three years, with most being for a three-year period. The total cost of these 46 research projects for the three-year period is over \$52 million.

Figure 1 depicts the number of FY1999 research projects in each of the four noted R&D areas. Proliferation resistant technologies, though not specifically mentioned, are incorporated in most of the advanced nuclear fuels and new reactor designs and technologies research projects. Additionally, the fundamental nuclear science area includes research projects in materials science, fundamental chemistry, computational and engineering science, and nuclear physics.

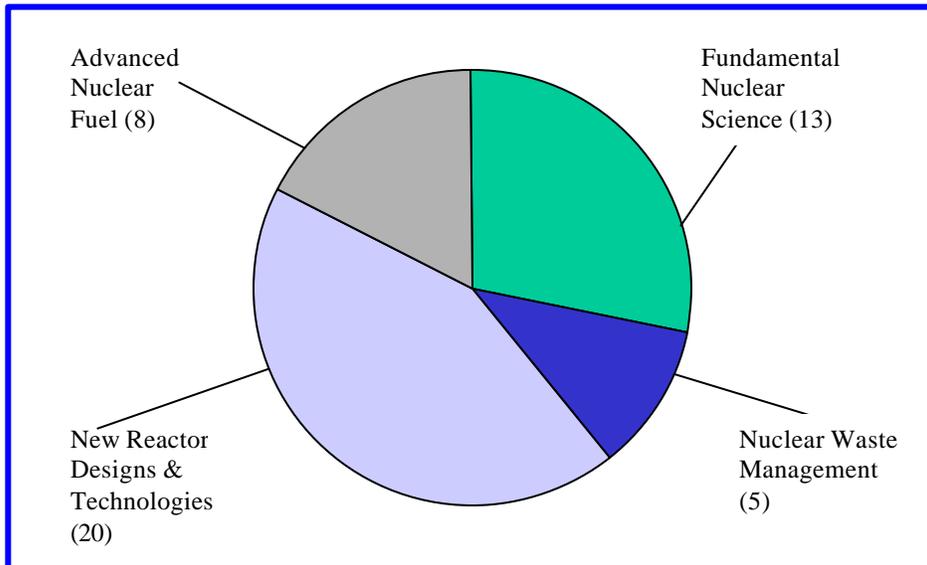


FIGURE 1
NERI R&D Areas
(FY1999)

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In FY2000, scientific knowledge and technology development was advanced through the continuation of research efforts begun in FY1999 and through the award of ten new NERI R&D projects involving 18 U.S. and six foreign R&D organizations. Figure 2 provides a funding summary of the participating organizations based on the FY1999 and FY2000 project funding. FY2000 appropriations totaled \$22.5 million.

The Department as part of the NERI Program has not funded foreign participation in existing projects. It has been supported by foreign nuclear organizations interested in the research being conducted. Although the principle investigators have been responsible for soliciting such support, the Department does approve all project participants.

In FY2001, DOE anticipates awarding approximately 15 new NERI projects and continuing ongoing research projects begun in FY1999 and FY2000. Approximately \$28 million has been appropriated for this effort.

In addition, the 1999 PCAST report on International Cooperation on Energy Innovation recommended that an international component to NERI be created to promote “bilateral and multilateral research focused on advanced technologies for improving the cost,

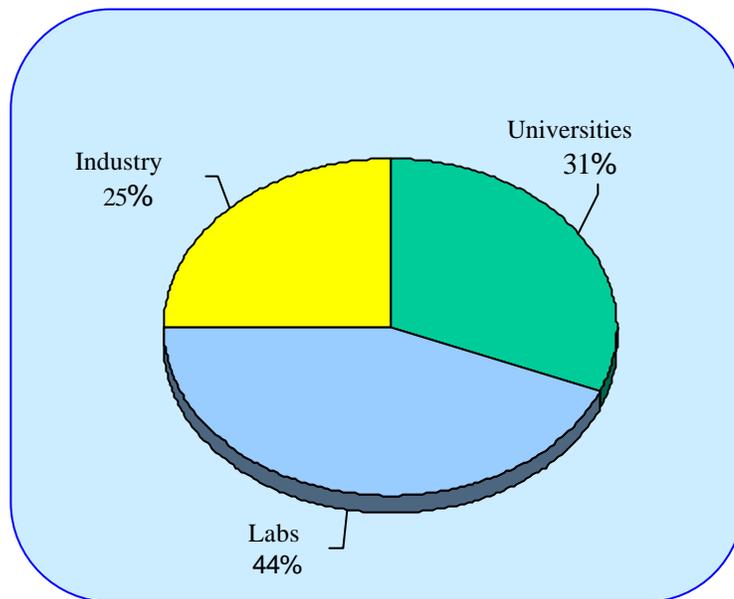


FIGURE 2
NERI Overall
Funding Profile
(FY1999 + FY2000)

safety, waste management, and proliferation resistance of nuclear fission energy systems.” In FY2001, the Department will launch a new initiative, the International Nuclear Energy Research Initiative (I-NERI) for bilateral and multilateral nuclear energy research. Approximately \$7 million has been appropriated for bilateral, cost-shared research work under the I-NERI program with countries such as Japan, South Korea, France, South Africa, and the European Union.

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I-NERI would allow DOE to leverage federal investment with international resources through specific cost-share arrangements with each participating country on a wide range of nuclear technology topics. I-NERI would further enhance the United States and the Department's influence in international policy discussions on the future direction of nuclear energy.

I-NERI will also feature competitive researcher-initiated R&D selected through an independent peer-review process by international experts from the U.S. and each participating country.