DEPARTMENT OF ENERGY
FY 1994 CONGRESSIONAL BUDGET REQUEST
ENERGY SUPPLY, RESEARCH AND DEVELOPMENT

OVERVIEW

ER LABORATORY TECHNOLOGY TRANSFER

Improving technology transfer and spinoff from the results of Federally supported R&D at national laboratories is an important factor in strengthening American industrial competitiveness and creating jobs. DOE is implementing a program focussed on opportunities at the Energy Research Laboratories for increased collaboration among industry, the government, and universities, and expedited spinoff of results of Federally developed R&D. "Spinoff" is the further development and application of technology which was developed by another R&D program for another purpose. There are many such spinoff opportunities at the laboratories. All of the spinoff projects rely upon "market pull" wherein the further development and application objective is defined by U.S. industry to meet its commercialization needs. In order to incorporate market-pull within the program, cost sharing by the industry participant is required for projects. The Energy Research Laboratory Technology Transfer Program is designed to provide funds for spinoff projects which build upon and are consistent with the technologies and missions resident in the Energy Research laboratories. The program strongly benefits U.S. competitiveness with a vision of making the national laboratories user friendly sources of R&D collaboration with U.S. industry.

The Energy Research Laboratory Technology Transfer Program is designed to more effectively transfer technology from Energy Research laboratories by supporting cost-shared, spinoff Cooperative Research and Development Agreements (CRADAs) and multi-laboratory partnerships (such as the American Textiles Consortium (AMTEX) Partnership) in accordance with the Department's technology transfer initiative which was implemented in response to the National Competitiveness Technology Transfer Act of 1989 (NCTTA). The program provides support for industry collaboration program offices at each of the laboratories to develop and implement technology maturation projects to prepare technology for eventual spinoff and collaborative development with industry, support personnel exchanges between laboratory and industry to promote further collaboration, and small quick response CRADAs with small business. The program also supports major multi-laboratory cost-shared spinoff partnerships which are technology development programs, jointly planned and managed by the industry and laboratory partners under the leadership of one Energy Research laboratory.

The FY 1994 budget request proposes to continue funding for the industry collaboration program offices (including maturation projects, personnel exchanges and small business CRADAs), spinoff CRADAs, multi-laboratory partnerships and development of a comprehensive evaluation program to assess progress, to identify means to strengthen the program structure, and to improve and expand the mechanisms used to develop partnerships with the private sector.

The program also supports the Technology Utilization function of the DOE Office of the Science and Technology Advisor. This includes activities associated with the overall policy development and coordination of DOE's enhanced Technology Transfer program, outreach activities and training.

This program includes a proposed FY 1993 supplemental request of $46,961,000 as part of the President's Economic Stimulus Package. The FY 1994 request includes $30,000,000 for the President's Economic Investment Package.

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(Tabular dollars in thousands narrative in whole dollars)

LEAD TABLE

ER Laboratory Technology Transfer

Activity	FY 1992 Adjusted	FY 1993 Appropriation	FY 1993 Adjustment	FY 1994 Request
Operating Expenses				
ER Laboratory Technology Transfer	$9,546	$56,041	-$234	$38,353
Technology Utilization	480	1,000	-26	1,000
Subtotal, ER Laboratories Technology Transfer	10,026 a/	57,041	-260	39,353
Adjustment	0	-46,961 b/	0	0
TOTAL	$10,026	$10,080	-$260 c/	$39,353
Staffing (FTEs)	(Reference Advisory and Oversight Program Direction)			

Authorizations:
P.L. 95-91, "Departmental of Energy Organization Act" (1977), Section 209

a/ Total has been reduced by $124,000 which has been transferred to the Small Business Innovative Research program.
b/ Pending supplemental.
c/ General reduction for use of prior year balances.

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SUMMARY OF CHANGES

ER Laboratory Technology Transfer

FY 1993 Appropriation	$ 10,080
- Adjustment -	
Pending supplemental	+46,961
General reduction for use of prior year balances	-260
FY 1993 Adjusted	$ 56,781
- Initiate fewer technology maturation, personnel exchanges and small spinoff CRADA projects.	-4,500
- Continue support of on-going spinoff CRADA projects; no new spinoff CRADA project starts....	-10,928
- Continue support for on-going AMTEX projects; initiate one new multi-laboratory partnership.	-2,000
FY 1994 Congressional Budget Request	$ 39,353

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(dollars in thousands)

KEY ACTIVITY SUMMARY

ER LABORATORY TECHNOLOGY TRANSFER

I. Preface: ER Laboratory Technology Transfer

This program fulfills the legislative mandate to more effectively transfer research and technology from Energy Research laboratories to industry, in accordance with the National Technology Initiative, the Energy Policy Act of 1992 and the Office of Science and Technology Policy policies and guidelines. The goal of the program is to link private sector and Energy Research laboratories' capabilities to enhance U.S. competitiveness through collaborative technology research. By design, this program provides only partial funding for technology research projects and personnel exchanges with industry and universities. Mandatory cost-sharing by industry and other partners ensures that cooperative projects will focus on those that generate real interest in the private sector and facilitate the transfer of technology. Proposed projects, such as CRADAs, are selected for funding based on merit, rather than by a blanket allocation to each laboratory. The FY 1994 request supports cost-shared spinoff CRADAs, two multi-laboratory partnerships in key industrial sectors, personnel exchanges, technology maturation projects, small CRADAs, particularly with small business, industry collaboration program offices, and development of a comprehensive evaluation program.

Note, the FY 1993 enacted column below includes a pending supplemental appropriation of $46,961,000, as part of the Economic Stimulus Package.

II. A. Summary Table: ER Laboratory Technology Transfer

Program Activity	FY 1992 Enacted	FY 1993 Enacted	FY 1994 Request	% Change
ER Laboratory Technology Transfer.....	$ 9,546	$ 55,807	$ 38,353	- 31
Total, ER Laboratory Technology Transfer	$ 9,546	$ 55,807	$ 38,353	- 31

II. B. Major Laboratory and Facility Funding

AMES LABORATORY	$ 0	$ 500	$ 500	0
ARGONNE NATIONAL LABORATORY (EAST)	$ 1,908	$ 10,200	$ 6,900	- 32
BROOKHAVEN NATIONAL LABORATORY	$ 1,046	$ 8,400	$ 5,900	- 30
CONTINUOUS ELECTRON BEAM ACCELERATOR FACILITY ...	$ 0	$ 500	$ 500	0
FERMI NATIONAL ACCELERATOR LABORATORY	$ 0	$ 500	$ 500	0
IDAHO NATIONAL ENGINEERING LABORATORY - EG&G	$ 0	$ 500	$ 500	0
LAWRENCE BERKELEY LABORATORY	$ 2,152	$ 10,200	$ 6,200	- 39
OAK RIDGE NATIONAL LABORATORY	$ 2,078	$ 11,000	$ 6,800	- 38
PACIFIC NORTHWEST LABORATORY	$ 1,985	$ 10,700	$ 7,700	- 28
PRINCETON PLASMA PHYSICS LABORATORY	$ 60	$ 500	$ 500	0
STANFORD LINEAR ACCELERATOR CENTER	$ 0	$ 500	$ 500	0
SUPERCONDUCTING SUPER COLLIDER LABORATORY	$ 0	$ 500	$ 500	0

III. Activity Descriptions: (New BA in thousands of dollars)

Program Activity	FY 1992	FY 1993	FY 1994
ER Laboratory Technology Transfer			
ER Laboratory Technology Transfer	Funded 40 Industry/Laboratory and University/Laboratory cost-shared personnel exchanges for technology transfer.	Support industry collaboration program offices at the 5 ER multi-program laboratories. Provide funding to the 5 ER multi-program and 6 ER dedicated laboratories to support new personnel exchanges, technology maturation projects, and new small spinoff CRADAs particularly with small business.	Support industry collaboration program offices at the 5 ER multi-program laboratories. Provide funding to the 5 ER multi-program and 6 ER dedicated laboratories to support initiation of new personnel exchanges, new technology maturation projects, and new small CRADAs, particularly with small business.
	Continue support of 5 CRADAs initiated in FY 1991 to perform technology research to advance promising technologies in key technical areas in partnership with industry. Funded 37 new cost-shared CRADAs at ER laboratories.	Continue support of 34 on-going spinoff CRADAs.	No new spinoff CRADA project starts.
	No activity.	Initiate 64 new CRADA projects and other technology transfer initiatives with $46,961,000 of proposed funding for the economic stimulus package.	Continue support of 64 on-going spinoff CRADA projects. This budget includes $30,000,000 for the economic investment package.
	No activity.	Implement the American Textiles Consortium (AMTEX) multi-laboratory partnership. Initiate development of new major partnerships in key industrial sectors.	Continue support for AMTEX on-going projects. Initiate one new multi-laboratory partnership in a key industrial sector.
	Funding in the amounts of $124 has been transferred to the SBIR program.	Funding in the amount of $838 has been budgeted for the SBIR program.	Funding in the amount of $575 has been budgeted for the SBIR program.
	$ 9,546	$ 55,807	$ 38,353
ER Laboratory Technology Transfer	$ 9,546	$ 55,807	$ 38,353

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KEY ACTIVITY SUMMARY

ER LABORATORY TECHNOLOGY TRANSFER

I. Preface: Technology Utilization

The Director of Technology Utilization (DTU) in the Office of Science and Technology Advisor is responsible for activities associated with the coordination, implementation and evaluation of DOE's Enhanced Technology Transfer Program. As a voice for technology commercialization stakeholders, the DTU serves as an advocate for technology transfer both internal and external to the Department. Activities include:

- Providing analytical and other support to the activities of the Technology Transfer Committee (TTC) made up of representatives from other parts of the department. The TTC is expected to further inter-program coordination through formation of a number of ad hoc and standing subcommittees and working groups. In addition to the TTC, the DTU will also provide analytical and other support to the activities of a number of ad hoc task forces and working groups associated with Departmental technology transfer, commercialization and utilization activities.

- Providing analytical and other support as part of DOE contribution to activities with other Federal agencies, state and local governments, trade associations, universities, the Federal Laboratory Consortium and other relevant groups outside of DOE on technology transfer, commercialization and utilization activities.

- Development, in coordination with Program Secretarial Officers, of a Department-wide technology transfer education and training program, outreach activities and a performance measurement and reporting system.

- Performance of cross-cutting technology and utilization studies and pilot activities.

II. A. Summary Table: Technology Utilization

Program Activity	FY 1992 Enacted	FY 1993 Enacted	FY 1994 Request	% Change
Technology Utilization.....	$ 480	$ 974	$ 1,000	+ 3
Total, Technology Utilization	$ 480	$ 974	$ 1,000	+ 3

II. B. Major Laboratory and Facility Funding

ARGONNE NATIONAL LABORATORY (EAST)	$ 217	$ 50	$ 50	0
BROOKHAVEN NATIONAL LABORATORY	$ 0	$ 0	$ 50	>999
LAWRENCE BERKELEY LABORATORY	$ 0	$ 0	$ 50	>999
OAK RIDGE INSTITUTE FOR SCIENCE & EDUCATION	$ 0	$ 300	$ 40	- 87
PACIFIC NORTHWEST LABORATORY	$ 2	$ 75	$ 50	- 33
SANDIA NATIONAL LABORATORIES	$ 0	$ 25	$ 50	+100

III. Activity Descriptions: (New BA in thousands of dollars)

Program Activity	FY 1992	FY 1993	FY 1994
Technology Utilization			
Technology Utilization	Developed tailored model CRADAs and umbrella CRADAs for specific, identified industry groups.	Continue to develop tailored model CRADAs and umbrella CRADAs for specific, identified industry groups.	Continue to develop tailored model CRADAs and umbrella CRADAs for specific, identified industry groups.
	Completed policy review and analysis of a few key selected issues, such as human genome patenting, conflict of interest and the impact of the Freedom of Information Act requirements on industrial partner confidentiality requirements.	Identify and perform analyses in support of the development of recommended policy solutions to potential and real barriers to technology transfer.	Identify and perform analyses in support of the development of recommended policy solutions to potential and real barriers to technology transfer. Provide policy recommendations on the specific issues related to technology transfer with small business.
	Development, implementation and evaluation of DOE's participation in the National Technology Initiative (NTI) conferences, including on-site logistics and technology fair support.	Provide analytical and other support to DOE's participation in a second series of National Technology Initiative (NTI) conferences, including on-site logistics and technology fair support.	No activity.
	Collected data, performed data validation and analysis, prepared and issued after approval of the Secretary the FY 1991 Annual Report to Congress on Technology Transfer Activities, Accomplishments and Plans.	Collect data, perform data validation and analysis, prepare and issue after approval of the Secretary the FY 1992 Annual Report to Congress on Technology Transfer Activities, Accomplishments and Plans.	Collect data, perform data validation and analysis, prepare and issue after approval of the Secretary the FY 1993 Annual Report to Congress on Technology Transfer Activities, Accomplishments and Plans.
	Provided analytical and other support to several ongoing task force efforts, such as the machine tool industry working group, the intellectual property counsel staffing study and the ad hoc Classification Committee.	Continue to provide analytical and other support to several ongoing task force efforts, such as the machine tool industry working group, the intellectual property counsel staffing study and the ad hoc Classification Committee.	Continue to provide analytical and other support to several ongoing task force efforts, such as the machine tool industry working group, the intellectual property counsel staffing study and the ad hoc Classification Committee.

III. Technology Utilization (Cont'd):

Program Activity	FY 1992	FY 1993	FY 1994
Technology Utilization (Cont'd)	Provided analytical and other support to several interagency technology transfer efforts, mainly the Interagency Committee on Federal Laboratory Technology Transfer, its Executive Level Working Group, and several special activity groups that addressed issues such as technology transfer and trade agreements, conflict of interest, and information protection.	Continue to provide analytical and other support to several interagency technology transfer efforts, mainly the Interagency Committee on Federal Laboratory Technology Transfer, its Executive Level Working Group, and several special activity groups that addressed issues such as technology transfer and trade agreements, conflict of interest, and information protection.	Continue to provide analytical and other support to several interagency technology transfer efforts, mainly the Interagency Committee on Federal Laboratory Technology Transfer, its Executive Level Working Group, and several special activity groups that addressed issues such as technology transfer and trade agreements, conflict of interest, and information protection.
	Provided data, analytical and other support to the Federal Laboratory Consortium, the Department of Commerce, and several other agencies including the National Aeronautics and Space Administration and the Department of Transportation.	Provide analytical, logistical and other support to developing program linkages with other agencies on technology transfer, including Memoranda of Understanding (MOUs). Provide analytical, logistical and other support to developing program linkages with states and industry groups on technology transfer, including MOUs. Perform data collection and analysis to develop a plan for establishing effective program linkages with state economic development offices, university technology transfer offices and industry/trade associations.	Provide analytical, logistical and other support to developing program linkages with other agencies on technology transfer, including Memoranda of Understanding (MOUs). Provide analytical, logistical and other support to developing program linkages with states and industry groups on technology transfer, including MOU. Perform data collection and analysis to develop a plan for establishing effective program linkages with state economic development offices, university technology transfer offices and industry/trade associations.
	No activity.	Develop a uniform Departmental-wide technology transfer awareness program for all DOE and M&O contractor staff involved with technology transfer.	No activity.

III. Technology Utilization (Cont'd):

Program Activity	FY 1992	FY 1993	FY 1994
Technology Utilization (Cont'd)	No activity.	Implement National Technology Initiative follow-up plans: - Develop and utilize the blue-card technology transfer issues/problems related question and answer data base. - Produce a videotape series on the NTI for outreach and training. - Collect feedback from the labs on response to NTI conferences. - Produce an NTI interim report characterizing inputs received during the NTI first series of conferences. - Produce a "one year later" NTI strategy that addresses in part the major issues/problems identified from the first series of NTI conferences (1/93).	No activity.
	No activity.	No activity.	Refine policies, procedures, evaluation and assessment measures so as to apply the FOIA exemptions of the Stevenson-Wydler Act to all DOE technology transfer agreements, working with other HQ Offices and Field Office elements.
	No activity.	No activities.	Refine policies, procedures, evaluation and assessment measures for expanding the Secretary's CRADA authority to include all DOE facilities, working with other HQ Offices and Field Office elements.
	No activity.	Define implementation plan for Sections 2203(c) and 3001(e) of Energy Policy Act of 1992 (EPACT).	No activity.

III. Technology Utilization (Cont'd):

Program Activity	FY 1992	FY 1993	FY 1994
Technology Utilization (Cont'd)	No activity.	No activity.	Refine definitions, policies, procedures and assessment methodologies stemming from DOE's Energy Policy Act of 1992 (EPACT) - conferred authority to enter into "joint ventures" for purpose of "commercial application," in coordination with other HQ Offices and Field Office elements.
	No activity.	Collect data, review inputs, establish the content and publish Technology '92-'93.	Collect data, review inputs, establish the content and publish Technology '92-'93.
	No activity.	Collect data, review inputs, establish the content and publish the R&D 100 Award brochure.	Collect data, review inputs, establish the content and publish the R&D 100 Award brochure.
	No activity.	Develop recommended Departmental approaches to budget and staffing crosscuts for technology transfer.	Continue to develop and refine recommended Departmental approaches to budget and staffing crosscuts for technology transfer.
	No activity.	Funding in the amount of $13 has been budgeted for the SBIR program.	Funding in the amount of $13 has been budgeted for the SBIR program.
	$ 480	$ 974	$ 1,000
Technology Utilization	$ 480	$ 974	$ 1,000